

ANNUAL REPORT 1997 - 98

# N C E R T



ANNUAL REPORT 1997-98

# NCERT



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्  
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING





November 1998  
Kartika 1920

PD IT BB

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11.11.2010  
[4286]

D. Room

Published at the Publication Division by the Secretary, National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi 110 016, lasertypeset at Data Vision, D-2, MCD Flats, R-Block, Greater Kailash I, New Delhi 110 048 and printed at Tara Art Printers, A-47, Sector V, Noida 201301



## Acknowledgements

The National Council of Educational Research and Training (NCERT) is indebted to Dr Murli Manohar Joshi, Union Minister for Human Resource Development and President, NCERT for his advice and guidance. The Council is also grateful to other distinguished members of its General Body, the Executive Committee, the Programme Advisory Committee and other Programmes Processing Committees for their keen interest and support in carrying out programmes towards qualitative improvement of school education.

The NCERT is thankful to the experts who spared their valuable time to serve on its various committees and extended help in many ways. Thanks are also due to all the organisations and institutions, including the State Departments of Education, SIEs/SCERTs, Boards of Secondary/School Education, and universities, which collaborated with the NCERT and extended cooperation in carrying out its activities in a spirit of partnership in the cause of education.

The NCERT would like to express its appreciation of the cooperation received by it from UNESCO, UNICEF, UNDP, UNFPA, World Bank, etc. for implementation of the programmes sponsored by them. It also appreciates the work done by the members of its staff at all levels without whose participation and dedication its programmes could not have been successfully implemented. Thanks are due to the thousands of teachers, students, parents and members of the public who sent letters to the various constituents of the NCERT giving their views on its publications and its programmes during the year 1997-98, which proved to be a constant source of inspiration for better performance.

This report has been drafted by Dr J.P.Mittal, Reader, with the assistance of the faculty and office staff of the Planning, Programming, Monitoring and Evaluation Division (PPMED). The report has been processed for publication by the Publication Division, NCERT. Their valuable contribution has given this report its present shape.





## **LIFE ETERNAL THROUGH LEARNING**



**NATIONAL COUNCIL OF  
EDUCATIONAL RESEARCH  
AND TRAINING**

The intertwined *Hansas* symbolise the integration of three aspects of the work of the National Council of Educational Research and Training (NCERT) :  
(i) Research and Development,  
(ii) Training, and (iii) Extension.  
The design has been adapted from an Ashokan period relic of the third century B.C. found in excavations near Maske in the Raichur District of Karnataka.

The motto has been taken from the Isavasya Upanishad and means *life eternal through learning*.

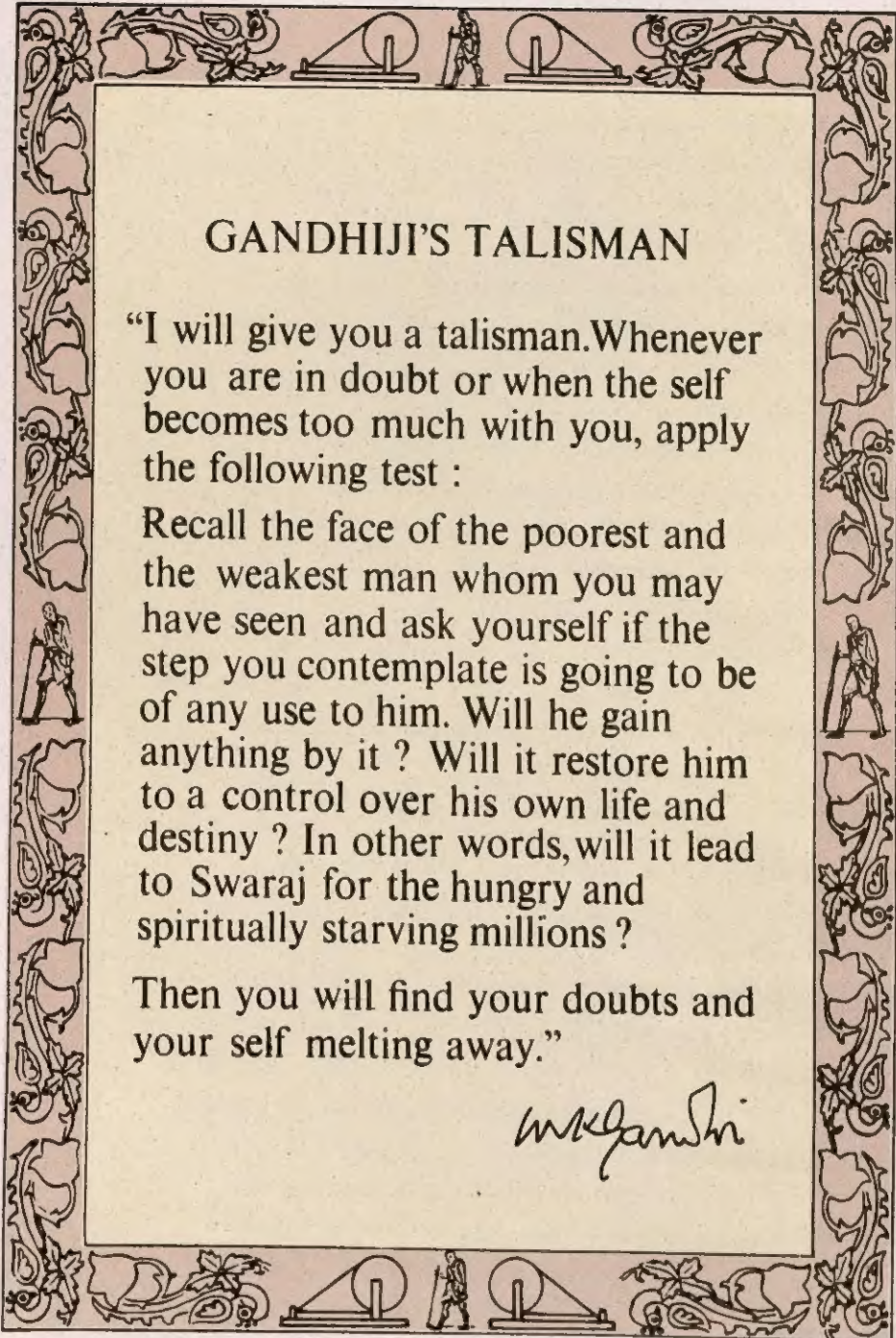
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## GANDHIJ'S TALISMAN

"I will give you a talisman. Whenever you are in doubt or when the self becomes too much with you, apply the following test :

Recall the face of the poorest and the weakest man whom you may have seen and ask yourself if the step you contemplate is going to be of any use to him. Will he gain anything by it ? Will it restore him to a control over his own life and destiny ? In other words, will it lead to Swaraj for the hungry and spiritually starving millions ?

Then you will find your doubts and your self melting away."

*M.K. Gandhi*



## Abbreviations

|               |  |                  |   |
|---------------|--|------------------|---|
| <b>AC</b>     | Academic Committee   | <b>DESSH</b>     | Department of Education in Social Sciences and Humanities           |
| <b>ACER</b>   | Australian Council for Education Research                                | <b>DGE&amp;T</b> | Directorate General for Employment and Training                     |
| <b>ADB</b>    | Asian Development Bank   | <b>DIET</b>      | District Institute of Education and Training                        |
| <b>AICTE</b>  | All India Council for Technical Education                                | <b>DLDI</b>      | Division of Library, Documentation and Information                  |
| <b>AIDS</b>   | Acquired Immuno Deficiency Syndrome                                      | <b>DPE</b>       | Diploma in Primary Education  |
| <b>AIEP</b>   | Area Intensive Education Project   | <b>DPEP</b>      | District Primary Education Programme                                |
| <b>AIES</b>   | All India Educational Survey   | <b>DPEPCRG</b>   | DPEP Core Resource Group  |
| <b>AIR</b>    | All India Radio  | <b>DPSEE</b>     | Department of Pre-School and Elementary Education                   |
| <b>APEID</b>  | Asia and the Pacific Programme of Educational Innovation for Development | <b>DRC</b>       | District Rehabilitation Centre                                      |
| <b>ANC</b>    | African National Congress  | <b>DRU</b>       | District Resource Unit  |
| <b>BAS</b>    | Baseline Assessment Surveys  | <b>DST</b>       | Department of Science and Technology                                |
| <b>BBC</b>    | British Broadcasting Corporation   | <b>DTEE</b>      | Department of Teacher Education and Extension                       |
| <b>BDO</b>    | Block Development Officer  | <b>DWS</b>       | Department of Women's Studies                                       |
| <b>BEO</b>    | Block Education Officer  | <b>EC</b>        | Executive Committee   |
| <b>BRC</b>    | Block Resource Centre  | <b>ECCE</b>      | Early Childhood Care and Education                                  |
| <b>CABE</b>   | Central Advisory Board of Education                                      | <b>ECE</b>       | Early Childhood Education   |
| <b>CAL</b>    | Computer Assisted Learning   | <b>EDC</b>       | Educational and Development Centre                                  |
| <b>CBR</b>    | Community Based Rehabilitation   | <b>Ed.CIL</b>    | Educational Consultants India Limited                               |
| <b>CBSE</b>   | Central Board of Secondary Education                                     | <b>EE</b>        | Environmental Education   |
| <b>CBT</b>    | Competency Based Teaching  | <b>EFA</b>       | Education for All   |
| <b>CCE</b>    | Continuous and Comprehensive Evaluation                                  | <b>ERC</b>       | Early Childhood Education Research Centre                           |
| <b>CCRT</b>   | Centre for Cultural Resources and Training                               | <b>ERIC</b>      | Educational Research and Innovations Committee                      |
| <b>CDPO</b>   | Community Development Programme Officer                                  | <b>ET&amp;T</b>  | Electronics Trade and Technology Development Corporation            |
| <b>CEP</b>    | Cultural Exchange Programme  | <b>ETV</b>       | Educational Television  |
| <b>CHEER</b>  | Children's Enrichment Experiment through Radio                           | <b>EVS</b>       | Environment Studies   |
| <b>CIET</b>   | Central Institute of Educational Technology                              | <b>GPF</b>       | General Provident Fund  |
| <b>CIRTES</b> | Central Institute for Research and Training in Employment Services       | <b>GSLIS</b>     | Group Saving Linked Insurance Scheme                                |
| <b>CLASS</b>  | Computer Literacy and Studies in Schools                                 | <b>GVC</b>       | Generic Vocational Course   |
| <b>CML</b>    | Children Media Laboratory  | <b>HLM</b>       | Hierarchical Linear Modelling                                       |
| <b>COBSE</b>  | Council of Boards of School Education                                    | <b>HM's</b>      | Headmasters   |
| <b>CPCI</b>   | Certification in Primary Curriculum and Instruction                      | <b>HRD</b>       | Human Resource Development  |
| <b>CPF</b>    | Contributory Provident Fund  | <b>IAB</b>       | Institute's Advisory Board  |
| <b>CPS</b>    | Central Primary School   | <b>IASE</b>      | Institute of Advanced Studies in Education                          |
| <b>CPT</b>    | Certificate in Primary Teaching  | <b>ICDS</b>      | Integrated Child Development Services                               |
| <b>CRC</b>    | Computer Resource Centre   | <b>ICEVI</b>     | International Council of Education of People with Visual Impairment |
| <b>CSS</b>    | Centrally Sponsored Scheme   | <b>ICSE</b>      | Indian Council of Secondary Education                               |
| <b>CTE</b>    | College of Teacher Education   | <b>IDA</b>       | International Development Agency                                    |
| <b>CFTC</b>   | Curriculum for Training Colleges   | <b>IED</b>       | Integrated Education of the Disabled                                |
| <b>DAB</b>    | Departmental Advisory Board  | <b>IEDC</b>      | Integrated Education for Disabled Children                          |
| <b>DAE</b>    | Department of Atomic Energy  | <b>IER</b>       | Indian Educational Review   |
| <b>DCETA</b>  | Department of Computer Education and Technological Aids                  | <b>IERDOC</b>    | International Educational Resource Documentation Centre             |
| <b>DDA</b>    | Delhi Development Authority  | <b>IGNOU</b>     | Indira Gandhi National Open University                              |
| <b>DEGSN</b>  | Department of Education of Groups with Special Needs                     | <b>IIT</b>       | Indian Institute of Technology                                      |
| <b>DENFAS</b> | Department of Education in Non-Formal and Alternative Schooling          | <b>IMO</b>       | International Mathematics Olympiad                                  |
| <b>DEME</b>   | Department of Educational Measurement and Evaluation                     | <b>INSAT</b>     | Indian National Satellite   |
| <b>DEPFE</b>  | Department of Educational Psychology and Foundations of Education        | <b>IPH</b>       | Institute of Physically Handicapped                                 |
| <b>DERPP</b>  | Department of Educational Research and Policy Perspectives               | <b>IRD</b>       | International Relations Division                                    |
| <b>DESDP</b>  | Department of Educational Survey and Data Processing                     | <b>ISK</b>       | Integrated Science Kit  |
| <b>DESM</b>   | Department of Education in Science and Mathematics                       | <b>ISRO</b>      | Indian Space Research Organisation                                  |
|               |  | <b>ITI</b>       | Industrial Training Institute                                       |
|               |  | <b>ITTP</b>      | Interactive Teacher Training Programme                              |
|               |  | <b>IUCAA</b>     | Inter-University Centre for Astronomy and Astrophysics              |



|               |  |                |   |
|---------------|--|----------------|---|
| <b>JCVE</b>   | Joint Council of Vocational Education                          | <b>Ph.D</b>    | Doctor of Philosophy  |
| <b>JET</b>    | Joint Evaluation Team  | <b>PIED</b>    | Project Integrated Education of the Disabled                      |
| <b>JIE</b>    | Journal of Indian Education                                    | <b>POA</b>     | Programme of Action   |
| <b>JNNSEC</b> | Jawaharlal Nehru National Science Exhibition for Children      | <b>POPDOC</b>  | Population Education Documentation Centre                         |
| <b>JNU</b>    | Jawaharlal Nehru University                                    | <b>PPMED</b>   | Planning, Programming, Monitoring and Evaluation Division         |
| <b>JNV</b>    | Jawahar Navodaya Vidyalaya                                     | <b>PPR</b>     | Project Progress Review   |
| <b>JNVST</b>  | Jawahar Navodaya Vidyalaya Selection Test                      | <b>PRI</b>     | Panchayat Raj Institution   |
| <b>KEDI</b>   | Korean Educational Development Institute                       | <b>PSA</b>     | Pre-Sanction Appraisal  |
| <b>KVS</b>    | Kendriya Vidyalaya Sangathan                                   | <b>PSK</b>     | Primary Science Kit   |
|               |  | <b>PSSCIVE</b> | Pandit Sunderlal Sharma Central Institute of Vocational Education |
| <b>LCFAKT</b> | Low Cost Functional Assessment Kit                             | <b>RACE</b>    | Reading Ability and Comprehension Enhancement                     |
| <b>LIC</b>    | Life Insurance Corporation                                     | <b>RGPSM</b>   | Rajeev Gandhi Prathamik Shiksha Mission                           |
| <b>MAS</b>    | Mid-term Assessment Surveys                                    | <b>RIE</b>     | Regional Institute of Education                                   |
| <b>MC</b>     | Managing Committee   | <b>RPDC</b>    | Regional Production-cum-Distribution Centre                       |
| <b>MCD</b>    | Municipal Corporation of Delhi                                 |                |   |
| <b>MCTTP</b>  | Multi-Category Teacher Training Programme                      | <b>SAARC</b>   | South Asian Association for Regional Cooperation                  |
| <b>MHRD</b>   | Ministry of Human Resource Development                         | <b>SC</b>      | Scheduled Caste   |
| <b>MLLs</b>   | Minimum Levels of Learning                                     | <b>SCC</b>     | State Coordination Committee                                      |
| <b>MoE</b>    | Minister of Education  | <b>SCERT</b>   | State Council of Educational Research and Training                |
| <b>MoU</b>    | Memorandum of Understanding                                    | <b>SIDH</b>    | Society for Integrated Development of Himalayas                   |
| <b>MPO</b>    | Master Plan of Operation                                       | <b>SIE</b>     | State Institute of Education                                      |
| <b>MPRC</b>   | Multipurpose Resource Centre                                   | <b>SIO</b>     | State Information Officer   |
| <b>MTK</b>    | Mini Tool Kit  | <b>SISE</b>    | State Institute of Science Education                              |
| <b>MTS</b>    | Mathematical Talent Search                                     | <b>SOPT</b>    | Special Orientation for Primary Teachers                          |
|               |  | <b>SPSS</b>    | Statistical Package for Social Sciences                           |
| <b>NACO</b>   | National Aids Control Organisation                             | <b>SRC</b>     | State Resource Centre   |
| <b>NBHM</b>   | National Board for Higher Mathematics                          | <b>SSO</b>     | State Survey Officer  |
| <b>NBT</b>    | National Book Trust  | <b>ST</b>      | Scheduled Tribe   |
| <b>NCERT</b>  | National Council of Educational Research and Training          | <b>STS</b>     | Science and Technology Society                                    |
| <b>NCT</b>    | National Capital Territory                                     | <b>STV</b>     | School Television   |
| <b>NCTE</b>   | National Council for Teacher Education                         | <b>TGT</b>     | Trained Graduate Teacher  |
| <b>NCVEI</b>  | National Centre for Vocational Education Information           | <b>TLC</b>     | Total Literacy Campaign   |
| <b>NDG</b>    | National Development Group                                     | <b>TTI</b>     | Teachers Training Institute                                       |
| <b>NDU</b>    | National Documentation Unit                                    | <b>TTTI</b>    | Technical Teachers Training Institute                             |
| <b>NFE</b>    | Non-Formal Education   | <b>TVET</b>    | Technical and Vocational Education Training                       |
| <b>NGO</b>    | Non-Governmental Organisation                                  | <b>UAE</b>     | United Arab Emirates  |
| <b>NHEES</b>  | Nutrition Health Education and Environmental Sanitation        | <b>UNCLES</b>  | University of Cambridge Local Examinations Syndicate              |
| <b>NIC</b>    | National Informatics Centre                                    | <b>UEE</b>     | Universalisation of Elementary Education                          |
| <b>NICNET</b> | National Informatics Centre Network                            | <b>UGC</b>     | University Grants Commission                                      |
| <b>NIE</b>    | National Institute of Education                                | <b>UK</b>      | United Kingdom  |
| <b>NIIPA</b>  | National Institute of Educational Planning and Administration  | <b>UNDP</b>    | United Nations Development Programme                              |
| <b>NIMH</b>   | National Institute of Mental Health                            | <b>UNESCO</b>  | United Nations Educational, Scientific and Cultural Organisation  |
| <b>NIPCCD</b> | National Institute of Public Cooperation and Child Development | <b>UNEVOC</b>  | UNESCO-sponsored Project on Technical and Vocational Education    |
| <b>NLEPT</b>  | National Library of Educational and Psychological Tests        | <b>UNFPA</b>   | United Nations Population Fund                                    |
| <b>NPCCCL</b> | National Prize Competition for Children's Literature           | <b>UNICEF</b>  | United Nations Children's Fund                                    |
| <b>NPE</b>    | National Policy on Education                                   | <b>UPE</b>     | Universalisation of Primary Education                             |
| <b>NPEP</b>   | National Population Education Project                          | <b>UT</b>      | Union Territory   |
| <b>NRCEE</b>  | National Resource Centre for Environmental Education           | <b>VE</b>      | Vocational Education  |
| <b>NTS</b>    | National Talent Search   | <b>VEC</b>     | Village Education Committee                                       |
| <b>NVC</b>    | Navodaya Vidyalaya Cell  | <b>VEO</b>     | Village Education Officer   |
| <b>NVS</b>    | Navodaya Vidyalaya Samiti                                      | <b>VEP</b>     | Vocational Education Programme                                    |
| <b>OB</b>     | Operation Blackboard   | <b>VP</b>      | Village Panchayat   |
| <b>ODA</b>    | Overseas Development Agency                                    | <b>WE</b>      | Work Experience   |
| <b>PAC</b>    | Programme Advisory Committee                                   | <b>WEP</b>     | Work Experience Programme   |
| <b>PC</b>     | Personal Computer  |                |   |
| <b>PD</b>     | Publication Division   |                |   |





1

## **NCERT : An Apex Resource Organisation in School Education**

Being an apex national body for research in school education, the NCERT performs the important functions of conducting and supporting research and offering training in educational research methodology. The different Departments of the National Institute of Education (NIE), Regional Institutes of Education (RIEs), Central Institute of Educational Technology (CIET) and Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) undertake programmes of research related to different aspects of school education, including teacher education.



**T**HE National Council of Educational Research and Training (NCERT) is an apex resource organisation set up by the Government of India, with headquarters at New Delhi, to assist and advise the Central and State Governments on academic matters related to school education.

The NCERT provides academic and technical support for improvement of school education through its constituents which are as follows:

1. National Institute of Education (NIE), New Delhi
2. Central Institute of Educational Technology (CIET), New Delhi
3. Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal
4. Regional Institute of Education (RIE), Ajmer
5. Regional Institute of Education (RIE), Bhopal
6. Regional Institute of Education (RIE), Bhubaneswar

7. Regional Institute of Education (RIE), Mysore
8. North-East Regional Institute of Education (NE-RIE), Shillong
9. Field Advisers' Offices in the States

### **National Institute of Education**

The National Institute of Education (NIE) in New Delhi through its various Departments carries out research and development functions related to pedagogical aspects of curriculum; prepares prototype curricular and other supplementary instructional materials; develops school education-related database and undertakes experiments in pre-school, elementary and secondary stages to nurture all-round development of the learner. The NIE also organises in-service training of key resource persons and teacher educators associated with implementation of centrally sponsored school improvement schemes. The educational concerns of the Departments of the NIE are given on pages 3-4.



CIET, New Delhi



# Educational Concerns of the Departments of the NIE

| Departments/Divisions  | Educational Concerns   |
|--|--|
| Department of Pre-School and Elementary Education (DPSEE)                | Issues and problems related to pre-school and elementary education including research and development of prototype teaching-learning materials and functions of the National Resource Group in teacher training, pedagogy and curriculum, as a part of the District Primary Education Programme (DPEP) jointly with the Department of Teacher Education and Extension.   |
| Department of Education in Non-Formal and Alternative Schooling (DENFAS) | Issues and problems of non-enrolled and drop-out children including research and development of prototype models of non-formal education, alternative schooling, studies related to open schooling for NFE, instructional materials and training strategies for NFE personnel.   |
| Department of Education of Groups with Special Needs (DEGSN)             | Issues and problems related to education of scheduled castes/scheduled tribes, minorities, disabled and other groups with special needs.   |
| Department of Women's Studies (DWS)                                      | Issues and problems related to education of girls and related research and development activities.   |
| Department of Education in Science and Mathematics (DESM)                | Issues and problems in the education of science and mathematics and research and development of prototype curriculum and instructional materials, and designing and developing of science equipments.  |
| Department of Teacher Education and Extension (DTEE)                     | Programmes for capacity-building of teacher education institutions at state/sub-state levels and academic support to the centrally sponsored scheme of teacher education; function of the National Resource Group on training, pedagogy and curriculum jointly with the Department of Pre-School and Elementary Education; coordination with the National Council for Teacher Education (NCTE), and issues related to extension education. |
| Department of Education in Social Sciences and Humanities (DESSH)        | Issues and problems of education in social sciences and humanities, research and development of prototype curriculum and instructional materials; population education activities as a part of the National Population Education Project (NPEP).   |



### Educational Concerns of the Departments of the NIE

| <i>Departments/Divisions</i>  | <i>Educational Concerns</i>  |
|---|--|
| Department of Educational Psychology and Foundations of Education (DEPFE) | Studies related to psychological, sociological and philosophical foundations of education; comparative education; and their implications for school education.   |
| Department of Educational Measurement and Evaluation (DEME)               | Measurement and evaluation related concerns in school education; examination reform including continuous and comprehensive evaluation, and related research and development activities.  |
| Navodaya Vidyalaya Cell (NVC)   | Technical support to the Navodaya Vidyalaya Samiti to select students for admission to the Jawahar Navodaya Vidyalayas in the country.   |
| Department of Educational Surveys and Data Processing (DESDP)             | Periodic thematic educational studies including All India Educational Surveys.   |
| Department of Educational Research and Policy Perspectives (DERPP)        | Promoting policy research in education; organising activities for operationalising 'think tank' function; undertaking, coordinating, sponsoring, and commissioning research and innovations in school education and functions of the ERIC Secretariat. |
| Department of Computer Education and Technological Aids (DCETA)           | Issues and problems in computer education and related research and development in modern technological aids/multi-media educational support and the functions of Computer Resource Centre.   |
| Planning, Programming, Monitoring and Evaluation Division (PPMED)         | Co-ordination of educational programme formulation, monitoring of programme implementation, evaluation of programme utilisation by the target groups, and impact assessment of programmes of the constituents of the NCERT.                            |
| International Relations Division (IRD)                                    | Co-ordination of international relations with educational institutions in other countries, and serving as an academic secretariat for the National Development Group (NDG).  |
| Publication Division (PD)   | Publishing school level textbooks, instructional and supplementary materials, journals and research monographs.  |
| Division of Library, Documentation and Information (DLDI)                 | Documentation of educational information and providing library services.   |



## **CIET**

The Central Institute of Educational Technology (CIET), also located in New Delhi, performs educational media-related research, development, training, production and extension functions, and provides academic and technical guidance and support to the State Institutes of Educational Technology (SIETs).

## **PSSCIVE**

Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), located in Bhopal, organises research and development functions related to vocational education in the school sector.

## **Regional Institutes of Education**

The Regional Institutes of Education (RIEs) located in Ajmer, Bhopal, Bhubaneswar and Mysore provide in-service training support to state and district level teacher training institutions in the school sector. To a limited extent, pre-service professional training to prepare school teachers for teaching Science and Mathematics and teacher educators of Elementary Teacher Training Institutions is also offered by the RIEs. A new North-East Regional Institute of Education (NE-RIE) was set up at Shillong in December 1995 to cater to the educational needs of the North-Eastern States (Assam, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland, Tripura and Sikkim).

## **Field Offices**

The Field Offices of the NCERT, mostly located in the state capitals, carry-out educational liaisoning with Departments of Education and other related institutions on problems and issues of school education in the states and apprise them of activities and programmes of the NCERT.

## **Programmes and Activities**

The NCERT undertakes the following programmes and activities.

## **Research**

Being an apex national body for research in school education, the NCERT performs the important functions of conducting and supporting research and offering training in educational research methodology. The different Departments of the National Institute of Education (NIE), Regional Institutes of Education (RIEs), Central Institute of Educational Technology (CIET) and Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) undertake programmes of research related to different aspects of school education, including teacher education.

Besides conducting in-house research, the NCERT supports research programmes of other institutions/organisations by providing financial assistance and academic guidance. Assistance is given to scholars for publication of their Ph.D. theses. Research fellowships are offered to encourage studies in school education to create a research base for developmental, training and extension programmes and to create a pool of competent research workers. It also organises courses for educational research workers.

The NCERT also organises educational research in the country. It has computer facilities for storing, processing and retrieval of data. It collaborates with international agencies in inter-country research projects.

## **Development**

Developmental activities in school education constitute an important function of the NCERT. The major developmental activities include development and renewal of curricula and instructional materials for various levels of school education and making them relevant to changing needs of children and society. The innovative developmental activities include development of curricula and instructional materials in school education in the area



of pre-school education, formal and non-formal education, vocationalisation of education and teacher education. Developmental activities are also undertaken in the domains of educational technology, population education, and education of the disabled and other special groups.

### **Training**

Another important dimension of NCERT's activities is the pre-service and in-service training of teachers at various levels; pre-primary, elementary, secondary and higher secondary, and also in such areas as vocational education, educational technology, guidance and counselling and special education. The pre-service teacher education programmes at the Regional Institutes of Education (RIEs) incorporate innovative features such as integration of content and methodology of teaching, long-term internship of teacher trainees in the actual classroom setting, and participation of students in community work. The RIEs also undertake the training of key personnel of the states and of state level institutions and training of teacher educators and in-service teachers.

### **Extension**

The NCERT has comprehensive extension programmes in which various Departments of the NIE, RIEs, CIET, PSSCIVE and the offices of the Field Advisers in the states are engaged in various ways. It works in close collaboration with various agencies and institutions in the states and also works extensively with Extension Service Departments and Centres in teacher training colleges and schools with the purpose of providing assistance to various categories of personnel, including teachers, teacher educators, educational administrators, question-paper setters, textbook writers, etc.

Conferences, seminars, workshops and competitions are organised as regular ongoing programmes as a part of the

extension activities. Several programmes are organised in rural and backward areas in order to reach out to the functionaries in these areas where special problems exist and where special efforts are needed. Special programmes are organised for the education of the disadvantaged sections of the society. The extension programmes cover all States and Union Territories of the country.

### **Publication and Dissemination**

The NCERT publishes textbooks for different school subjects for Classes I to XII. It also brings out workbooks, teacher's guides, supplementary readers, research reports, etc. In addition, it publishes instructional materials for the use of teacher educators, teacher trainees and in-service teachers. These instructional materials, produced through research and developmental work, serve as models to various agencies in States and Union Territories. These are made available to state level agencies for adoption and/or adaptation. The textbooks are published in English, Hindi and Urdu.

For dissemination of educational information, the NCERT publishes six journals: *The Primary Teacher* is published both in English and Hindi and aims at giving meaningful and relevant educational inputs to primary school teachers for direct use in the classroom; *School Science* serves as an open forum for discussion on various aspects of science education; *Journal of Indian Education* provides a forum for encouraging original and critical thinking in education through discussion on current educational issues; *Indian Educational Review* contains research articles and provides a forum for researchers in education; and *Bharatiya Adhunik Shiksha* published in Hindi, provides a forum for encouraging critical thinking in education on contemporary issues and for dissemination of educational problems and practices. Besides these, a house journal called *NCERT-Newsletter* is also published



every month in English and Hindi. The title of the Hindi version of the newsletter is *Shaikshik Darpan*.

### **Exchange Programmes**

The NCERT interacts with international organisations such as UNESCO, UNICEF, UNDP, UNFPA and the World Bank to study specific educational problems and to arrange training programmes for personnel from developing countries. It is one of the Associated Centres of APEID. It also acts as the Secretariat of the National Development Group (NDG) for Educational Innovations. The NCERT has been offering training facilities, usually through attachment programmes and participation in workshops, to educational workers of other countries.

The NCERT also acts as a major agency for implementing the Bilateral Cultural Exchange Programmes entered into by the Government of India with the governments of other countries in the fields of school education and teacher education by sending delegations to study specific educational problems relevant to Indian requirements and by arranging training and study visits for scholars from other countries. Educational materials are exchanged with other countries. On request, the faculty members are deputed to participate in international conferences, seminars, workshops, symposia, etc.

### **Organisational Structure**

The Union Minister of Human Resource Development is the President of the General Body of the NCERT. The members of the General Body include the Education Ministers of all States and Union Territories. Other members of the General Body include the Chairperson of the University Grants Commission (UGC); the Secretary to the Government of India, Ministry of Human Resource Development (Department of Education); four Vice-Chancellors of Universities (one from each region); the Chairman of the Central Board of Secondary Education; the Commissioner

of the Kendriya Vidyalaya Sangathan; the Director, Central Health Education Bureau; the Director of Training, Directorate General of Training and Employment, Ministry of Labour; a representative of the Education Division, Planning Commission; all the members of the Executive Committee (not included above) of the Council and such other persons, not exceeding six, as the Government of India may nominate (not less than four of these shall be school teachers). The Secretary, NCERT, acts as the convenor of the General Body of the NCERT.

The main governing body of the NCERT is the Executive Committee. The Union Minister of Human Resource Development is its President (*ex officio*) and the Union Minister of State in the Ministry of Human Resource Development is the *ex officio* Vice-President. The members of the Executive Committee include the Secretary to the Government of India, Ministry of Human Resource Development (Department of Education); the Director, NCERT; the Chairperson of the University Grants Commission; four educationists with known interest in school education (two of whom shall be school teachers); the Joint Director, NCERT; three members of the faculty of the NCERT (of whom at least two shall be of the level of Professor and Head of the Department); one representative of the MHRD and one representative of the Ministry of Finance (who shall be the Financial Adviser of the NCERT). The Secretary, NCERT acts as the convenor of the Executive Committee.

The Executive Committee is assisted in its work by the following Standing Committees:

1. Finance Committee
2. Establishment Committee
3. Building and Works Committee
4. Managing Committees of the Regional Institutes of Education
5. Advisory Board of the Central Institute of Educational Technology
6. Advisory Board of Pandit Sunderlal



Sharma Central Institute of Vocational Education

7. Academic Committee of the NIE
8. Advisory Boards of Departments of the NIE
9. Programme Advisory Committee
10. Educational Research and Innovations Committee

The NCERT's headquarters consist of :

1. The Council's Secretariat
2. Accounts Branch

The five senior functionaries of the NCERT appointed by the Government are the Director, the Joint Director, the Joint Director of the CIET, the Joint Director of PSSCIVE, and the Secretary. During the year under report, these positions were held by the following.

#### Senior Functionaries of the NCERT

|                             |   |
|-----------------------------|---|
| Director                    | Prof. A.K. Sharma   |
| Joint Director              | Prof. A.N. Maheshwari   |
| Joint Director<br>(CIET)    | Smt. Kusum Nangia<br>(up to 31 August 1997)<br>Prof. P.K. Bhattacharya<br>(from 11 February 1998) |
| Joint Director<br>(PSSCIVE) | Prof. A.K. Mishra   |
| Secretary                   | Vacant  |

The Director is, inter alia, assisted in the academic functions by three Deans. During the year under report, the positions were held by the following.

#### Deans of the NCERT

|                     |                       |
|---------------------|-----------------------|
| Dean (Research)     | Prof. A.N. Maheshwari |
| Dean (Academic)     | Prof. Arjun Dev       |
| Dean (Coordination) | Prof. M.S. Khaparde   |

The Dean (Academic) coordinates the work of the Departments of the NIE; the Dean (Research) coordinates the research programmes and looks after the work of the Educational Research and Innovations Committee (ERIC); and the Dean (Coordination) coordinates the activities of the Service/Production Departments, the

Field Offices and the Regional Institutes of Education.

#### Planning and Monitoring of Programmes

While formulating their programmes, the constituents of the NCERT, inter alia, keep in view the provisos of the National Policy on Education (NPE) and the educational needs of the states requiring NCERT's inputs. The educational needs of the states are identified mainly through the mechanism of the State Coordination Committees (SCCs) which provide a forum for interaction among the NCERT faculty and senior functionaries of the State Education Departments. The State Education Secretary is the Chairperson of the SCC and the Principal of the concerned Regional Institute of Education (RIE) is the Member-Convenor.

The identified educational needs of the States are further considered by the RIEs in their Managing Committees (MCs). Inputs for several educational needs of the states are provided by the RIEs themselves. The educational needs of the states requiring inputs from other constituents of the NCERT are referred to them for taking necessary action. The academic programmes of the Departments of the NIE are processed through the Advisory Boards of the concerned Departments (DABs) and thereafter by the Academic Committee (AC) of the NIE. The programmes of the CIET, based on media support required by the educational system, are processed through Institute's Advisory Board (IAB). The programmes of the Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) are processed through its Institute's Advisory Board (IAB). Research programmes proposed by the constituents of the NCERT and other institutions/ organisations are considered by the Educational Research and Innovations Committee (ERIC). Programmes referred by the Academic Committee, the Institutes' Advisory Boards, the Managing Committees of the RIEs and the Educational Research and Innovations



State educational needs identified by the NCERT in consultation with the State education authorities are processed through the State Coordination Committees (SCCs).

The educational Programmes of the Regional Institute of Education (RIEs) are processed through the Managing Committees (MCs) of the RIEs.

Research Programmes proposed by the constituent units of NCERT and other institutions/organisations, including university departments and voluntary organisations, are considered by the Educational Research and Innovations Committee (ERIC).

**Diagrammatic presentation of the mechanism at the NCERT level for formulation of academic programmes reflecting educational needs of the states, national commitments and international inputs, their implementation for qualitative improvement of school education, monitoring of programme implementation, evaluation of end products/outcomes and their utilisation to improve the education system.**

Programmes referred by AC, IABs, MCs and ERIC are scrutinised by a Sub-Committee of the Programmes Advisory Committee to check duplications, overlaps, gaps, etc.

Programmes scrutinised by the Sub-Committee of the PAC are considered by the Programme Advisory Committee (PAC) of the NCERT.

The programmes approved by the PAC are finally approved by the Executive Committee (EC) of the NCERT.

The programmes approved by the PAC and EC are implemented by the constituents of the NCERT.

Progress of implementation of the programmes is monitored by the Head of the Constituent/Department every month and by a Monitoring Committee, chaired by the Director.

The outcome of the programmes is evaluated by the Constituent/Department or the PPMED for wider infusion into the education system for qualitative improvement in school education.

Academic programmes of the Departments of the National Institute of Education (NIE), based on the advice of the MHRD, the National Policy on Education (NPE), interactions with state education authorities, assistance sought by the Central Educational Organisations (CABE, KVS, NVS, CBSE, etc.) and inputs of international organisations are processed through the Advisory Boards of Departments (DABs) of the NIE and thereafter by the Academic Committee (AC) of the NIE.

Programmes of the Central Institute of Educational Technology (CIET), based on the media support required by the education system and needs of the constituents of the NCERT and the SIETs, are processed through the Institute's Advisory Board (IAB).

Programmes of the Central Institute of Vocational Education (CIVE) are processed through the Institute's Advisory Board (IAB).



Committee are scrutinised by a Sub-Committee of the Programme Advisory Committee to check overlaps and gaps, etc.

The programmes processed by various programme processing committees are finally considered by the Programme Advisory Committee (PAC). The PAC, inter alia, recommends to the Executive Committee of the NCERT the lines on which the research, training, extension and other programmes should be conducted and the channels into which they should be directed to best serve the objective of promoting the interest of school education in the country. The PAC also considers the programmes that are received by the NCERT from international organisations through MHRD.

During the year 1997-98, the Programme Advisory Committee (PAC) met on 26 March 1998 and considered the recommendations of the various Advisory Boards/Committees.

### **Monitoring of Programme Implementation**

The Head of each Constituent/Department of the NCERT is mainly responsible for monitoring of implementation of its programmes. The progress of implementation of the programmes of the Constituents/Departments of the NCERT are reviewed by the Director/Joint Director, NCERT.

The entire process of planning, implementation, monitoring and evaluation of programmes of various Constituents of the NCERT is a collaborative or joint venture of the NCERT and the States. In almost all academic programmes of the NCERT, academics and professionals from the States/UTs are involved at various stages, i.e. from the planning to the wider infusion of the outcomes into the system. The entire process gives an opportunity to

the NCERT faculty to work for the States/UTs with their close cooperation. In order to streamline the process of planning, monitoring of implementation and evaluation of academic programmes, the NCERT has prepared a framework. The framework was sent to Education Secretaries of the States/UTs for comments and suggestions and adoption/adaptation.

### **Reports and Returns**

The NCERT prepares from time to time several reports and returns about its programmes and activities for various purposes. The following reports and returns were submitted to the MHRD.

1. Monthly report on important activities and significant events
2. Monthly summary of important activities and significant events
3. Monthly report of important events for the Cabinet Secretariat
4. Monthly Progress Report about education of Scheduled Castes, Scheduled Tribes, and Minorities
5. Quarterly report about action taken for implementation of the recommendations of the National Integration Council
6. Quarterly report about action taken on the welfare of minorities and to curb communalism
7. Annual Report of the NCERT
8. Performance budget

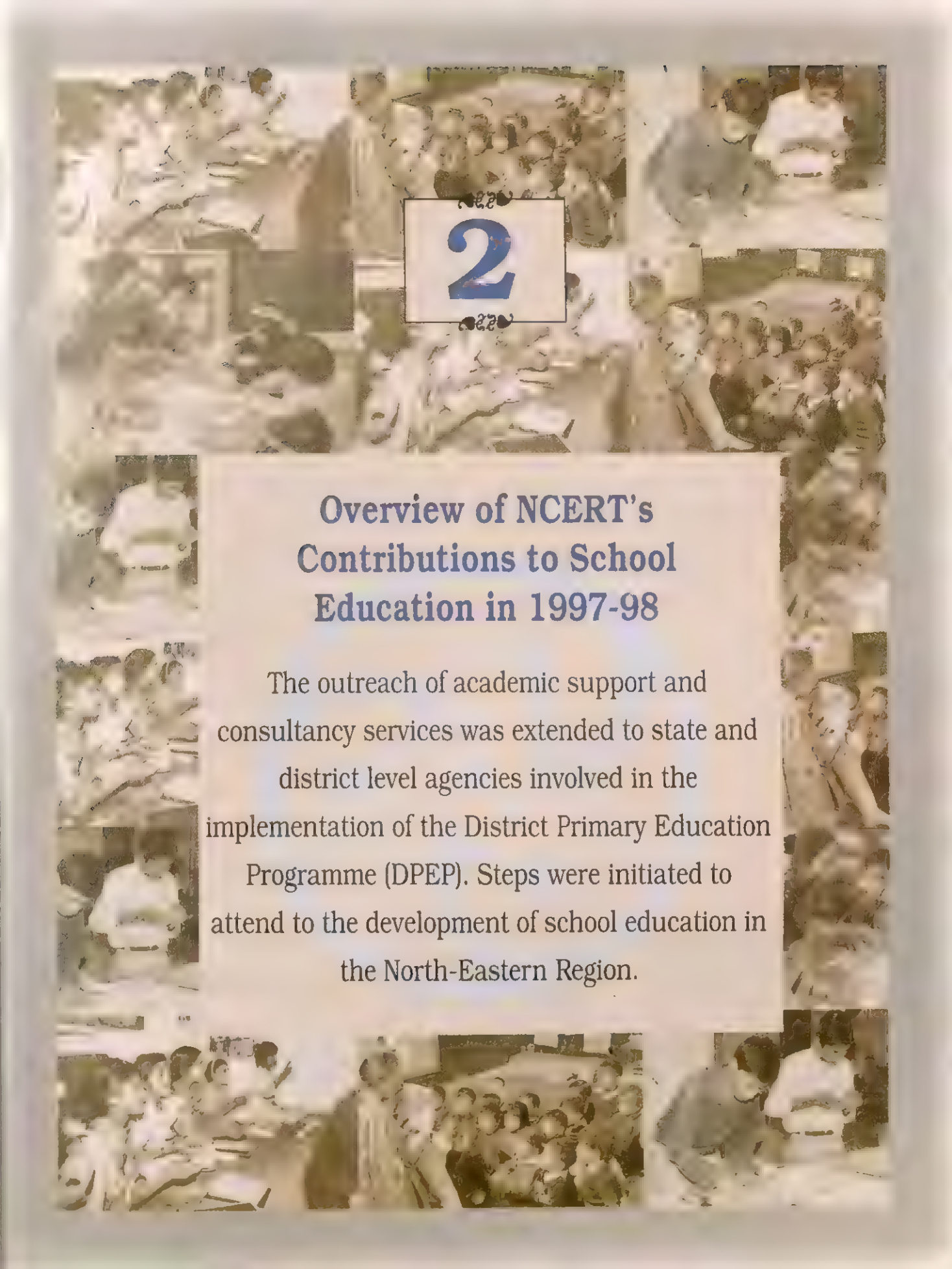
### **Administration**

Category-wise sanctioned staff strength of the NCERT as on 31 March 1998 is shown in Appendix II.

### **Finance**

The information regarding receipt and payment of the NCERT for the year 1997-98 is given in Appendix III.





# 2

## **Overview of NCERT's Contributions to School Education in 1997-98**

The outreach of academic support and consultancy services was extended to state and district level agencies involved in the implementation of the District Primary Education Programme (DPEP). Steps were initiated to attend to the development of school education in the North-Eastern Region.



**D**URING 1997-98, the NCERT had a fresh look at its programmes and reprioritised them to respond to the national concerns in school education. Elementary education received special emphasis. The implementation of the Programme of Action (POA) on the National Policy on Education (NPE) in other sectors of school education was also carried out at an accelerated pace.

The outreach of academic support and consultancy services was extended to state and district level agencies involved in the implementation of the District Primary Education Programme (DPEP). Steps were initiated to attend to the development of school education in the North-Eastern Region. The *Fifth Survey of Educational Research* and the *Sixth All India Educational Survey* were released. An overview of the programmes and activities conducted by the constituents/departments of the NCERT, including regional level inputs through the RIEs, are briefly mentioned in this section. The details of the programmes and activities are given in the thematic chapters.

### **Early Childhood Education (ECE)**

The academic activities and programmes continued in 1997-98 for improving qual-

ity of pre-school education, developing relevant resource materials, conducting training/orientation programmes and undertaking research studies. A training programme in ECE was organised for State level key functionaries. Indicators were formulated for monitoring progress of children in ECE Centres. A National Meet was organised on fundamental rights of the child to education upto the age of 14, including pre-school stage. A Status Study of Creches of Delhi was conducted. In an Enrichment Training Programme for Creche Workers new strategies were discussed for : (i) Toy Making, Infant Stimulation, Puppet Making, Story Telling and Rhymes. In a National Seminar-cum-Review Meeting future guidelines were developed for preparing Plans of Action in the next Master Plan of Operation (MPO).

### **Primary Education**

In the context of the Universalisation of Elementary Education (UEE), the efforts were geared towards improvement of quality of primary education. Collection of additional information related to MLLs and ECE Studies, its cataloguing and computer feeding continued as part of development of the National Documentation Unit for MLL and ECE. Four issues of the quar-



**General Body Meeting (1996-97) in Progress**



terly Newsletter *Glimpses* provided latest information on developments in pre-school

I elementary education. Regular publication of other quarterly Journals *The Primary Teacher* in English and *The Primary Shikshak* in Hindi provided much needed media for exchanging views and news about innovations in primary education, catering mainly to primary practising classroom teachers and teacher educators. Based on the deliberations of a Seminar to review the priorities in curriculum at primary stage, a document 'Primary Years: A Curriculum Framework' was prepared. The study on 'Critical Reviews of Researches in Elementary Education' was completed. Evaluation of the *Balika Shivar* programme under the *Shiksha Jumbish* was planned and field work was initiated. Broad areas of Art Education Curriculum were finalised.

### **Non-Formal Education and Alternative Schooling**

Learner Specific instructional materials related to vocabulary were developed for street and working children, girls living in slum areas, children working in *dhabas*, repairing workshops. The vocabulary of children engaged in various activities, its gradation, coverage in lessons and teacher's notes for transactional processes formed part of the developed materials. For capacity building of curriculum framers and material developers at upper primary stage, competencies were identified and guidelines were developed for Language, Mathematics, Science, Social Sciences and Work Experience. After identifying the expected competencies at the end of Class VI of formal schools, competency based textual materials for learners of the NFE were modified and fresh materials in Algebra and Geometry were developed. The Supplementary Readers I and II were reviewed and finalised.

The NFE faculty members of SCERTs/SRCs in NFE and Alternative Schooling were oriented in various aspects of NFE Programme. For sharing of experiences two

programmes were organised involving State Government officials and NGOs.

Under the MHRD's Scheme of Grant-in-Aid to Voluntary Agencies for carrying out innovations and experimentation in elementary education, including NFE, a peer review of proposals for innovative and experimental projects in NFE was undertaken. Consultancy services in the field of NFE were extended to various governmental and voluntary organisations.

### **Education of Scheduled Castes and Scheduled Tribes, and Minorities**

Language textbooks for Classes I and II for children of the Santhal, Munda, Oraon, Kharia, Saora, Gond and Irula tribes were prepared in tribal dialects (Regional scripts) and disseminated to the concerned States. The manuscripts of textbooks in Warli and Rathwa tribal dialects of Gujarat and Santhali, Mundari, Kurukh, HO and Kharia of Bihar were finalised. Manuscripts of the Supplementary Reading materials for Saora and Kondh tribes of Orissa were also finalised.

To study the efficacy of Ashram Schools to meet the educational needs of tribal children in terms of learning materials, teaching-learning process and achievement, necessary preparations were made for conducting case studies of selected Ashram schools in Andhra Pradesh, Gujarat, Orissa and Madhya Pradesh. Workshops were organised for identification of attitudinal issues, development of methodology and the training activities for changing attitude of non-tribal teachers towards tribal children. Tribal areas teachers were involved in these workshops. Using the training methodology developed 3000 teachers were covered. A 'Handbook of Information for Teachers on Educational Development of the Scheduled Castes' was developed to enable teachers to understand problems of Scheduled Castes children in learning situations. A study



was undertaken to analyse the content of curricula of Maktabas/Madrasas and to suggest modifications in terms of MLLs at the primary level.

### **Education of the Disabled Children**

A Handbook was developed after identifying the difficulties faced by the hearing impaired children in integrated schools and special schools to assist the primary school teachers, teacher educators and educational planners in planning teaching of Hindi language in an integrated setting. On the basis of assessed needs, the manuscript of another Handbook was developed for providing concrete guidelines for teachers to integrate children with low vision in mainstream environment. A guide book suggesting organisation of a resource room in a normal school, where disabled children are to be integrated, has been developed. Academic assistance was provided to Madhya Pradesh, Uttar Pradesh, Kerala, Maharashtra and Haryana to formulate their plans of action for implementation of integrated education in the DPEP districts. A workshop was organised to share experiences drawn from the Project Integrated Education of the Disabled (PIED) with the Directors of Education and the Deputy Directors of IED Cells in the States. A report highlighting the recommendations for implementing integrated education of the disabled was finalised. Resource support was provided for the disabled in the Central Schools.

### **Support to the District Primary Education Programme (DPEP)**

Two documents 'Trend Analysis of Learner's Performance' and 'Three Years of DPEP and Learners Achievement' were prepared by the NCERT. These documents provide indicators for mid-term corrections and established pointers for a futuristic planning of programmes under the DPEP. The progress of the DPEP activities was reviewed by the Coordination Committee of the DPEP in its three meetings. The In-

depth Review Mission of DPEP met on 6 October 1997. The document 'The Primary Years : A Curriculum Framework' developed in two parts is characterised by its unique and different treatment stages of primary years. Three case studies were conducted with reference to multi-grade teaching under DPEP. Diagnostic Tests in Language and Mathematics for Primary Classes were developed. Evaluation of Primary level textbooks developed under DPEP was carried out for Kerala and Madhya Pradesh, Haryana, Tamil Nadu, Maharashtra, Karnataka and Kerala and reports submitted to the MHRD. A study to assess the status and functioning of the Block Resource Centres (BRCs) and the Central Primary Schools (CPS) in Maharashtra in the context of DPEP was completed. A case study of the effective training practices under the Project 'Comprehensive Quality Improvement for Primary and Secondary Schools of the HBSCSC, Bombay' was conducted. A Project on 'Identification of Primary Teachers' Training' is in progress. After preparing profiles of BRCs and CRCs, framework for working with them was prepared and interventions for implementations were designed. Essential competencies for primary teachers were identified. In the context of 'Training of States' Personnel in Monitoring and Evaluation of In-Service Training of Primary Teachers', six training modules have been developed.

An International Seminar on 'Teacher Empowerment and School Effectiveness at the Primary Stage' was organised from 23 to 25 July 1997 at New Delhi. The proceedings of the Seminar were documented and published under the title *Teacher Empowerment and School Effectiveness at Primary Stage*. A volume containing papers presented in the three International Seminars organised under the aegis of DPEP suggesting action points was prepared. In the meanwhile, preparatory work for the conduct of the Fourth International Seminar on 'Researches in Learning Organisa-



tion, Community Participation and School Effectiveness at Primary Stage' was initiated. Fourteen research/studies pertaining to various aspects of primary education were conducted during 1997-98 by the constituents of the NCERT.

### **Education of the Girl Child**

A National Seminar-cum-Workshop was organised to reflect on the progress made in the education of girls and women during 1947 to 1997 and to identify critical issues in education and development of girls, and to work out future directions for education of girls and women towards achieving the ultimate goal of gender equality. The Seminar made several valuable recommendations. A conference was organised to deliberate on the state of education of the Muslim girls. The conference made valuable suggestions to provide school education to Muslim girls and bringing them in the mainstream.

In the second phase of implementation of the Innovative Pilot Project on Promotion of Primary Education of Girls and Disadvantaged Groups in Haryana, emphasis was given on advocacy for education of the girl child and school based programme on quality and gender equality. Two hundred eighty-six primary teachers were trained in this phase. Six awareness campaigns (Shiksha Utsavs) were organised.

Textbooks of Classes I and II of Maharashtra were evaluated from the standpoint of gender bias and gender stereotyping with the help of tools developed by the NCERT.

### **Education in Social Sciences and Humanities**

A Status Study on 'Position of Different Subjects in Curriculum in Different States of the Country' was completed in Social Science subjects and Commerce. Studies on 'Status of Languages in School Curriculum in India with Focus on the Language Curriculum and Syllabi, Textbooks and Evaluation in an Inter-Related Manner' and

'Evaluation of Linguistic Competency in Hindi Language Acquired by Students of Arunachal Pradesh at the end of Class V' were also undertaken. Evaluation of textbooks from the standpoint of national integration continued. The aspect of human rights was added to the criteria of evaluation. The textbooks revised/newly prepared during the year included: Bal Bharati for Classes III and IV, Kishore Bharati and Supplementary Readers for Class VIII, Civics Textbooks for Classes IX and X, Hindi version of Part II of the Contemporary World History for Class XII, and Geography Textbook for Class XII. Work on preparation of Urdu Quwaid and the History of Urdu Literature continued. Awards for the XXIX National Prize Competition for Children's Literature were presented in a National Meet of Authors and Illustrators of award winning entries. Eight selected essays out of 2681 entries in the All India Essay Competition for School Students on Netaji Subhash Chandra Bose, organised as a part of the Birth Centenary Celebration of Netaji, were given awards. A survey of 'Young People's Understanding of Human Rights' was completed as a part of four-country study sponsored by the Commonwealth Secretariat and a country report was prepared.

### **National Population Education Project (NPEP)**

The Project documents for 29 States/UTs for the new phase of the National Population Education Project (NPEP) 1998-2001 and a national document for the new phase of the project 'Population and Development in Schools' were developed. A package of Basic Materials on Adolescence Education was sent to the States. Two training programmes in new strategies of Population Education were organised.

Tools for the study on 'Adolescents' Awareness and Attitudes Towards the Process of Growing-Ups' were prepared. The national component of the International Poster Competition on Population



Education (1997) was organised and entries were sent to the UNFPA Headquarters. The Posters were analysed for the study of 'Perspective of Population and Development Issues' by school students.

Monitoring and implementation of the project activities were done through periodic reports and visits. A meeting of the National Steering Committee on Population Education and two Project Progress Review Meetings were organised.

### **Education in Science and Mathematics**

Curricula in Science and Mathematics at secondary stage were reviewed to enhance conceptual understanding of basic operations in Mathematics. Three video modules were developed on process based curriculum in Mathematics at the primary level. A manual on Laboratory Skills in Chemistry was developed for the senior secondary stage. Worksheets based on practical course for Class XI were also modified and enriched. Write-ups prepared for 40 experiments in the context of designing and developing activity oriented 3-D models were comprehensively reviewed. An activity based manual in Biology for the Senior Secondary stage was prepared. A draft laboratory manual for using various teaching aids/models based on activities pertaining to Mathematics was prepared.

A model, Physics Talent Nurturance Programme at the Senior Secondary Stage was developed and tried out on the National Talent Search (NTS) awardees. A module covering various areas in Physics was also developed. Under the Project 'Reading to Learn', writing of new books was undertaken on several new topics in Science such as Communication, Carbon-60, Multi-Media, Seismology and Earthquake, Geophysical Prospecting, Finger Printing, Hargobind Khurana and Genes, Dr. Saha and His Formula and Medicinal Plants. Under the Project titled 'Some Interesting Topics in Chemistry,' a module on 'Inorganic Fibres' was developed.

A training programme in Physics, Chemistry, Biology and Mathematics for PGTs of the Navodaya Vidyalaya Samiti, and a training programme for TGTs in Mathematics of the Central Tibetan School Administration were organised.

The 24th Jawaharlal Nehru National Science Exhibition for Children (JNNSEC-98) on the theme 'Science and Technology for Quality of Life' was organised in collaboration with the Education Department, Haryana at Gurgaon from 18 to 25 January 1998. A booklet titled, *Structure and Working of Science Models* was brought out. The NCERT provided grants-in-aid amounting to Rs.17.31 lakhs to the State level Science exhibitions for children.

### **Environmental Orientation to School Education**

A National Resource Centre for Environmental Education (NRCEE) was set up at the National Institute of Education (NIE), NCERT in 1996-97 to promote intense interaction among the school system, educational planners, curriculum developers and teachers trainers on the one hand and the specialized institutions on the other. The Centre aims at collection of environmental education information/materials and process, classify and disseminate the information. An Environmental Education Data Bank on various aspects of Environmental Education is also being developed. Five Resource Groups at the RIEs and the NIE were constituted during the year for developing region specific environmental education training materials in regional languages which could be used by the DIETs for training of primary school teachers. As part of capacity building among the educational functionaries, Environmental Education Training for Curriculum Developers has been an on-going exercise in the NCERT for the last three years. The target group identified for the training is the curriculum developers from Secondary/Senior Secondary School Education Boards of the States and NGOs. It is being



enlarged to cover SCERTs and other institutions. The training content aims at: (i) Familiarising the participants with the recent developments in the area of Environmental Education, (ii) Framing strategies for incorporation of environmental components in the curriculum, (iii) Exposure to the enlarged role and expectations of Environmental Education, and (iv) Procedure and guidelines for curriculum development including evaluation with environmental dimensions.

### **Educational Psychology**

Critical Study of the Educational Psychology Curriculum of Elementary Teacher Education in India is in progress. A study 'Adolescent's Perceptions of Social Norms' is being conducted to examine the nature and extent of discrepancies between parental expectations. Under an 'In-depth Study of Guidance Research in India', data pertaining to 300 studies has been collected and tabulated on a number of variables. Other studies in progress include: (i) A Study of the Predictive Potential of the Selection Procedure for Performance in the Counsellor Training Programme and On-the-Job Performance, (ii) Analysis of Science Textbooks of the Secondary Stage with reference to the Nature of Science, Attitudes and Values towards Science and its Relevance for Daily Life, and (iii) Counsellor in the Making : Status and Development. Under the study 'Research Trends and Indigenisation of Educational Psychology in India', 640 articles from *Indian Psychological Abstracts* have been collected and analysed. Analysis of 94 research reports has also been completed. The second phase of the case study, 'Schooling in Mirambika' focussed on perception of students, teachers and parents with regard to adjustment, coping style and life satisfaction.

An exemplar Curriculum in Educational Psychology for Elementary Teacher Education is being developed. Research material on 'Teacher Questioning in Classroom' and a Practical Guide on 'Counselling Case Man-

agement' are being developed. Other developmental activities include : (1) Building Personal and Career Consciousness in Girls, (2) Career Development in India : Theory, Research and Development, (3) Handbook of Personality Measurement in India, and (4) Handbook of Value/Attitude/Interest Measurement in India. The National Library of Educational and Psychological Tests was enriched by inclusion of 30 Indian and two foreign tests.

Thirty trainees from 11 States participated in a 9-month Diploma Course in Guidance and Counselling. An orientation programme in Guidance and Counselling was organised for Key Persons from the States. An Enrichment Course in Psychology was organised for teachers teaching Educational Psychology in DIETs of four Hindi speaking States.

A National Conference of State Level Key Guidance Personnel was organised to have an up-to-date position of guidance services in the country at the level of State Departments of Education. Preparations were made for organising a National Seminar on Educational Psychology in India to deliberate on Emerging Issues and Concerns. Consultancy services and research support in the areas of Educational Psychology, Guidance and Counselling were provided to various government and non-government agencies.

### **Examination Reforms**

To improve the evaluation process, a pool of questions in Environmental Studies for Class III were developed, refined and finalised. Sixty-five passages of different varieties as exercises for reading comprehension were developed for teaching English in Classes IV and V. Two volumes of a book titled "Let Us Read and Understand," containing 25 exercises in each volume, were developed. Orientation programmes for paper setters of the National Open School, New Delhi and the Manipur Board of Secondary Education



were organised. Consultancy services were provided to the Haryana Board of Secondary Education in analysing question papers of the Board for the year 1996-97.

### Teacher Education

The programmes and activities in teacher education generally focused on development of capabilities in the States to respond effectively to the training needs of the States including training of personnel under DPEP and SOPT. Studies on : (i) Working Conditions of Primary School Teachers in Haryana and Madhya Pradesh, and (ii) Instructional Practices and Classroom Management in Large Size Classes at Primary Stage were conducted. Nine case studies of the NCERT awardee innovative primary school teachers were conducted. Appraisal of Teaching Practices in Pre-Service Teacher Education Programmes was done. A study on 'Operationalisation of the Scheme of DIETs' continued. An in-depth study of teacher educators of the State of Rajasthan under the title 'Teacher Educators in Perspective: Explorations in their Social Origins, World View and Professional Productivity' was completed.

A Code of Professional Ethics for Teachers was developed in collaboration with the Federation of Primary and Secondary School Teachers' Organisations and a group of eminent educationists, and circulated widely. A self-instructional package for evaluation of DIETs was developed.

An in-service Training Programme for the Principals of DIETs and an Induction Level In-service Training Programme for the faculty of DIETs were conducted. An Induction Training Programme for the SCERTs faculty was also organised in the context of capacity building programme of SCERTs. A Training Programme on Qualitative Research Methods for CTEs was organised at Bangalore for the faculty of University Departments of Education of Southern region. A programme of Promotion of Research in Elementary Education in IASEs was organised at Bangalore. Prob-

lems of research in elementary education were identified and steps for promotion of research were suggested.

An impact study of SOPT training of classroom teachers was carried out. After having organised a series of teleconferencing programmes to train primary school teachers, a study on 'Effectiveness of Alternative Technology Options in the Training of Primary School Teachers' was undertaken. A teleconferencing programme for 500 faculty members from DIETs was organised to provide training in various roles and functions such as UEL, Micro-Planning and Classroom Strategies, Assessment of Training Needs, Material Development, Planning and Organisation, Evaluation of Training Programmes and Research and Development Activities. Twelve self-instructional modules with activity sheets and evaluation tools for assessing the effectiveness of teleconferencing programme were developed.

The Annual Conference of Directors of SCERTs/SIEs was organised to deliberate on changing roles of the SCERTs with reference to latest developments in Indian education and to identify the training needs of the SCERTs faculty. A National Seminar on 'Common School System' was organised which was attended by educationists, educational administrators, teachers and teacher educators, scientists and journalists. The Seminar suggested that the common school system of education be strengthened in the country. Under the scheme of 'Innovative Experiments and Practices in Teacher Education and School Education', 49 papers at pre-primary and elementary level and 28 papers at the secondary and senior secondary level were selected for award. The awards were given in a National Seminar.

Consultancy services were provided to the Government of Mizoram in the formulation of educational policy and plan of action suited to the specific needs of the State. At the instance of the MHRD, a blue-



print of Teacher Centres (TCs) and Block Resource Centres (BRCs) was developed for their effective functioning. Assistance was provided to the 'Task Force on INSAT for Secondary School Teachers' appointed by the MHRD for developing Plans of Action to institutionalise and professionalise secondary school teachers' in-service education.

**The Regional Institute of Education (RIE), Ajmer** developed a training package in Mathematics at the Upper Primary level and a training package on teaching of Social Sciences at the Secondary level. A training-cum-Workshop for +2 Vocational Teachers of Accountancy was organised. A Training Programme for Teachers in Office Management/Secretarial Practice was also organised. Practice sets in Financial Accounting were developed. A Workshop on Methodology of Organising Quiz Contests was organised. Training programmes were also organised for teachers/Key Resource Persons of DIETs, TGTs of the Kendriya Vidyalaya Sangathan (KVS) in Mathematics and Physics, Key Resource Persons/Teachers of DIETs faculty in teaching Urdu at Elementary level, and Headmasters/Teachers of Cooperating Schools. Strategies for monitoring and evaluation of progress of DIETs were developed. Training packages in Science, English and in Comprehensive and Continuous Evaluation (CCE) were developed and tried out. A Training Module in Environmental Education was developed for DIETs of the Northern Region under the MHRD's Scheme of Environmental Orientation to School Education.

**The Regional Institute of Education (RIE), Bhopal**, conducted a study of Common Errors Analysis in Social Science Question Papers and Answer Scripts of the Board of Secondary Education of Madhya Pradesh. A three-month training course for DIETs Key Persons in Integrated Education for the Disabled (IED) was designed. A Training Module for Orientation of Master Trainers in IED was developed. Tools to study the effectiveness of cluster coordina-

tors were prepared. Remedial materials in Science at the Secondary level and Chemistry and Biology at +2 level and supplementary learning materials at the Primary level and for non-formal education and alternative schooling were developed. Diagnostic Tests in Commerce for Class XI were also prepared. Training Programmes for DIETs faculty in: (i) Evaluation Techniques, (ii) CMDE and PSTE, (iii) Designing Action Research Projects, (iv) Teaching of Science and Mathematics at Upper Primary level, and Elementary Education were organised. A training programme for Mathematics Teachers in Concepts related to Computer Education was organised. A training programme for review of textbooks in the context of MLLs was also undertaken. Key Persons were trained in Paper Setting Techniques in Physics, Chemistry and Biology at +2 level. A Training Programme for TGTs in Physics, Biology, Mathematics on Concepts and Skills was also organised. Training Materials prepared under the Centrally Sponsored Scheme of Environmental Orientation to School Education of the MHRD were reviewed.

Evaluation of Alternative Schooling Project of the Rajiv Gandhi Prathamik Shiksha Mission (RGPSM) in six Districts of Madhya Pradesh was completed. A programme of imparting induction and enrichment training to Key Resource Persons of Madhya Pradesh and members of the District Resource Units of DIETs of Maharashtra, Goa and Gujarat was undertaken. The Population Education Week was celebrated by organising an inter-school Painting and Essay Competition. Learning materials in Adolescence Education were prepared in Hindi and tried out on Class IX Students of Government Schools in Bhopal. An Impact Study of the training provided in Madhya Pradesh under SOPT was conducted. An innovative experiment in Competency Based Teaching in the Demonstration School revealed that activity based teaching moti-

vates the learner to learn faster. Training/orientation programmes were organised for: (i) Primary and Secondary School Teachers of Ordnance Factories of the Western Region, (ii) Resource Persons of Primary Schools of the Kendriya Vidyalaya Sangathan, (iii) PGTs in Physics and Mathematics of Railway Schools, (iv) PGTs in Biology of the KVS, and (v) Lecturers in Computer Education of the Makhan Lal Chaturvedi National University of Journalism. Textbooks of Classes I, II and III in Language (Hindi and Urdu), Environmental Studies and Mathematics of Madhya Pradesh were reviewed. A Regional Seminar on 'Teacher Empowerment and School Effectiveness at Primary Stage' was organised as a prelude to the International Seminar.

**The Regional Institute of Education (RIE), Bhubaneswar** had undertaken the research projects: (i) Effects of Psycho-Social Factors on Science Learning by Tribal Children of Orissa, (ii) Cognitive and Awareness Abilities of Secondary Students of Orissa regarding Population, Environment, and Resources, and (iii) Status Study and Survey of PQL of the Human Population of Balasore, Khurda and Koraput Districts of Orissa. The institute worked on development and try-out of training packages on (i) Learning Difficulty for DIETs Faculty, (ii) Teaching Hindi at Secondary Level, and (iii) Transaction concept centred Experiments in Chemistry at Senior Secondary Level. Programmes on (i) Formulation of Training Strategies to ensure Effective Participation of Local Communities/Bodies for Better Functioning of Primary Schools, and (iii) Try-Out of Strategies for Effective Handling of Large Size Classes were also undertaken.

**The Regional Institute of Education (RIE), Mysore** organised orientation/training programmes for (i) faculty of DIETs in Physical Education, (ii) Key Persons of Andhra Pradesh in Testing and Evaluation of English as a Second Language, (iii) Sec-

ondary School Teachers in Physical Science based on the New Textbooks, (iv) Key Persons from Kerala in Methods of Teaching English, and (v) Teacher Educators of Kerala in Data Processing and Statistics using Computers. A training programme on Awareness and Utilisation of Computers in Educational Data Processing was also organised. A training package on Motivation of Primary School Teachers of Andhra Pradesh was developed.

**The North-East Regional Institute of Education (NERIE), Shillong** organised a Workshop-cum-Training programme for Key Persons in ADC Area of Tripura. Teacher educators, school teachers and other officials of Meghalaya were trained in Continuous and Comprehensive Evaluation. A seminar on 'Perspectives of School Education in the North Eastern States' was organised. Academic support and consultancy was provided to the North Eastern States in development of Curriculum for Primary Classes, selection of academic staff and selection of teachers for national awards.

### Vocational Education

Curricula for courses on Clothing for the Family, Seed Production Technology, Co-operation, Taxation, Computer Science, Medical Laboratory Technician, Purchasing and Store-Keeping, Electronic Technology and X-Ray vocational courses were revised. New Vocational Education Curricula on Rural Infomatics Management, Handicrafts, Computer Aided Drawings and Drafting and Computer Aided Multi-Media Materials were developed.

Instructional Materials pertaining to the Vocational Courses in the area of Marketing and Salesmanship, Institutional House Keeping, Crop-Production, Catering and Restaurant Management, Inland Fisheries and Automobile Engineering Technology were developed. Training Modules for Vocational Guidance Teachers were prepared. Instructional Materials on Cosmetic Production for pre-vocational education were



developed. Ten manuscripts of materials on Vocational Education and 10 manuscripts of materials on Pre-Vocational Education were sent for publication. Twelve books/manuscripts belonging to vocational courses in (i) Dairying, (ii) Commercial Garment Designing and Making, (iii) Textile Designing, (iv) Horticulture, (v) Poultry Rearing, (vi) Bakery and Confectionery, and (vii) Crop Production were also sent to the State Governments, SCERTs, and Boards of Secondary Education in the States/UTs.

Instructional Materials in the area of Agriculture and Fisheries, Protected Cultivation, Furniture Finishing and Decoration, Repair and Maintenance of Solar Cooker and Hand Pump, Processing and Production of Food Items through Dehydration, and Conservation and Management of Soil and Water for Sustainable Development were developed for training of neo-literates.

A draft framework for a system of National Vocational Qualifications: Testing and Certification of Competencies for various levels of occupation in dairying was developed. The Framework included curricula for 90 occupations.

Thirteen training programmes for teachers in the areas of Creche and Pre-School Management, Commercial Garment Designing and Making, Auditing and Accounting, Vocational Guidance and Counselling, Office Management, Environmental Education, Computer Science, Entrepreneurship Development, and Repair, Maintenance and Rewinding of Electric Motors were organised. One training programme for the Generic Vocational Course (GVC) Resource Persons and two programmes exclusively for the teachers of Madhya Pradesh in the area of Engineering and Technology and Business and Commerce were organised.

Fifteen Orientation Programmes on Vocational Education for more than 500 key functionaries from various States and UTs were organised. An orientation programme on paper setting in vocational courses was

organised for the SCERT, Manipur. Orientation programmes on Pre-Vocational Education were conducted for key functionaries of Gujarat, Bihar and Maharashtra. A National Seminar on Economic Empowerment of Women through Vocational Education was organised.

On the occasion of fourth Foundation Day Celebration of the Central Institute of Vocational Education, Bhopal, on 5 July 1997, awards were given (one each for each State) for best vocational school and best school-industry linkage. Top two achievers awards were given at the rate of two awards per State based on the result of the Higher Secondary Examination.

Career Conferences in 14 Lab Schools in Bhopal and neighbouring areas were organised to create awareness about vocational courses and to help the vocational teachers in actual administration of the scheme. One issue each of the *Indian Journal of Vocational Education* and the *Quarterly Bulletin for Vocational Education* was published. Three Exhibitions for Popularization of Vocational Education were organised. Research Projects in Vocational Education in progress include: (i) Comparative Study of Implementation of General Foundation Courses in different States, (ii) Benchmark Survey of Vocational Guidance in States, (iii) Status Study of Vocational Pass-outs of Business and Commerce based Vocational Courses in India, (iv) Career Aspirations of Girls in Urban and Rural Societies vis-a-vis Vocational Education, (v) Establishment of School-Industry Linkage in Secondary Vocational Schools — Action Research, and (vi) Comparative Evaluation of Quality and Standard of Vocational Curricula and Instructional Materials in Selected States. The Joint Evaluation Team evaluated the work of two NGOs running vocational courses at Gwalior and submitted its report to the MHRD.

## Educational Technology

The telecast of a programme titled, *Tarang* for children from the Doordarshan (DD-I) continued during the year. One hundred fifty five video programmes and 52 continuities were produced for telecast. A weekly audio programme *Umang* was broadcast throughout the year from ten All-India Radio Stations, viz. Allahabad, Lucknow, Jaipur, Jodhpur, Bhopal, Indore, Patna, Rohtak, Shimla and Delhi.

Three video programmes for Class X and 53 video programmes for Class XII covering entire syllabi in Mathematics were produced. A series of 60 programmes on difficult concepts in Science for Class X were identified and programme briefs were worked out. Eight ETV Programmes were produced as inserts in one-week. Tele-Conferencing Programme organised for 800 teachers of 45 DIETs in Madhya Pradesh. A video programme of 38 minutes duration titled 'Shikshan Pranali' for education of Nursery Teachers was also developed.

One hundred ten audio programmes were produced. A series of 12 audio programmes on 'Struggle of India's Independence' was also produced.

Under the series 'Land and People,' a film titled 'Abode of the Gods' (with its Hindi version Dev Bhumi) was produced. Hindi version of the film 'Solar Eclipse' titled 'Surya Ki Taj Posh' was completed. Work on English and Hindi versions of the films titled 'Warrior Land' (Veer Bhumi) continued. The NCERT's entry 'Billi Ka Panja' won special commendation prize in the MHK, Japan International Education contest.

Orientation/training programmes were organised in 'Basics of Programme Production and Technical Operations and Lighting', Camera Operations, Editing and General Maintenance of Studio Equipment. An orientation workshop for ETV script writers was organised. Two orientation programmes for teacher educators of DIETs

and IASEs/CTEs were organised to familiarize them with theoretical and practical frameworks of educational technology, characteristics and potentials of various educational media, techniques of classroom instructions, advance computer technology and evaluation process.

Four series of TV Programmes on (i) Mathematics, (ii) Diseases and Science Concepts, (iii) Environmental Studies, and (iv) Globe in Geography were field tested. The reports of three studies were disseminated. The Mathematics programmes produced for Classes X and XII were also field tested and a report was brought out under the title 'Tele-Math : An Evaluation'. Research articles/abstracts pertaining to children and ETV, Radio and Multi-Media programmes encompassing the period from 1980 to 1996 were collected and categorised under the project 'Research Implications for Media Production'. A 'Study to Assess the Needs for Educational Media Programmes about Physical Conditions and Curricular Requirements for Upper Primary School Teachers and Children' continued. A research study to ascertain the 'Effectiveness of Radio Broadcasts' under the service 'Umang' on cognitive development of Anganwadi children was initiated. Criteria for an effective ETV programme were evolved. About 200 programmes were got transferred on VHS and other cassettes for making them available to educational institutions. One thousand sets of audio programmes containing five cassettes each were supplied to the MHRD (Department of Culture). Consultancy services were provided to DIETs in Chennai for procurement of studio equipment and setting up of direct transmission link. The CIET, NCERT continued coordinating the activities of six SIETs in their academic and media production activities.

## Computer Education and Technological Aids

The NCERT continued to give attention to problems in Computer Education and re-



and research and development in modern technological aids/media in its programmes and activities. A Computer Resource Centre set up at the NCERT Headquarters, provided Internet and e-mail facilities in order to have access to global information relevant to education.

Research and developmental activities relating to Science Kits for schools, production of prototypes, experimental trial and training of teachers on the new designs continued. The existing Science Kits were reviewed and a number of kit items were modified. Three hundred forty four Integrated Science Kits, 109 Primary Science Kits and Mini Tool Kits were despatched to various demanding States/UTs. A new programme on development of PC based experiments was undertaken and an inter- and temperature sensor, etc. were developed/refined. Development of a model of Progen Burner was undertaken.

### **National Talent Search**

The purpose of this scheme is to identify brilliant students at the end of Class X and provide them financial assistance towards getting good education so that their talent may develop further. Seven hundred fifty scholarships, including 70 scholarships for SC and ST candidates, were awarded during 1997-98. The selection for the award was done in two stages. The first stage selection was done by the States through written examinations. The second stage selection was done by the NCERT.

### **Jawahar Navodaya Vidyalaya Selection Test (JNVST)**

During 1997-98, only one JNVST was conducted by the NCERT in April 1997 for the States of Arunachal Pradesh, Assam, Bihar, Haryana, Himachal Pradesh, Jammu and Kashmir, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura, Uttar Pradesh and Delhi. Later on, the work pertaining to preparation of Selection Tests and processing of results was transferred to the Central Board of Secondary Education.

### **Promoting Educational Research and Innovations**

The NCERT provided financial assistance to outside institutions/organisations for research in priority areas. Ten research projects supported by the Educational Research and Innovations Committee (ERIC) were completed. Sixty research projects under ERIC were in progress. Seven Ph.D. theses were published with assistance from ERIC and fresh publication grant was sanctioned for four Ph.D. theses. A meeting of the ERIC was organised to review policy matters and to consider research proposals for financial assistance. The Fourth Researchers' Seminar to Monitor the Progress of ERIC Funded Projects was organised. The Expert Group meet was held to scrutinise fresh research proposals received for financial assistance.

Research, innovations and other developments in the field of school education / teacher education were disseminated through the following journals :

- ☐ *Journal of Indian Education*
- ☐ *Bhartiya Adhunik Shiksha*
- ☐ *Indian Educational Review*

The first volume of *Fifth Survey of Educational Research*, presenting trend reports in 38 areas, was brought out. The second volume containing abstracts of researches conducted during 1988 to 1992 was processed for publication.

For the next Survey of Educational Research covering the period from 1993 to 1997, a new modality had been adopted to minimize the time gap between the completion of the research studies and their wider dissemination. Publication of a bi-annual research journal titled '*Indian Educational Abstracts (IEA)*' continued. The manuscript of the fifth issue of IEA covering 150 studies was processed for publication during the year.

### **Educational Surveys**

'Provisional Statistics' of the Sixth AIES

with reference date 30 September 1993 were brought out in December 1995. Volume I of the National Tables titled *Educational Facilities in Rural and Urban Areas* was published and disseminated during 1997-98. Four volumes of the National Tables on Schools and Physical Facilities, Teachers in Schools, Enrolment and Schools, Educational Inputs and Facilities in Secondary and Higher Secondary Schools were at different stages of publication.

### International Cooperation

The NCERT continued working as a major agency for implementing the Bilateral Cultural Exchange Programmes in the field of school education and teacher education. During 1997-98, educational materials/information were supplied to the Governments of Mauritius, Cuba, Finland, Turkey, Sudan, China and the Federal Republic of Germany. Educational reports, materials, documents, etc. in the area of school education were received from the Governments of Turkey and the Federal Republic of Germany. The materials received under CEPs are displayed in the International Education Resource Centre located in the Division of Library, Documentation and Information (DLDI), NCERT. Several members of the NCERT faculty were deputed to attend various programmes in foreign countries sponsored by International agencies/countries. The NCERT faculty interacted with the delegates/educationists and teachers from several countries who visited India.

### Field Services

The Field Advisers, NCERT continued performing liaison functions pertaining to implementation of programmes and activities undertaken by various constituents of the NCERT, MHRD, and State Education Departments, etc. The Department of Extension Education of the RIEs continued identifying, through the State Coordination Committees (SCCs), the educational needs of the States requiring inputs from the con-

stituents of the NCERT. The Field Advisers of NCERT stationed in the States also provided assistance to the Regional Institutes of Education in identifying the educational needs of the States requiring NCERT's inputs.

The Field Advisers, NCERT provided assistance to the State Education Departments in the context of selection of teachers for national awards, development of curricula and instructional materials, training of personnel and policy formulation, etc. Assistance was also provided to the MHRD inter alia in the context of (i) monitoring of implementation of the centrally sponsored schemes in the States, (ii) pre-sanction appraisal of NFE proposals submitted by voluntary agencies, and (iii) assessment of functioning of the NFE voluntary agencies running NFE Centres through Joint Evaluation Teams.

### Library and Documentation

The Division of Library, Documentation and Information (DLDI) at the NCERT Headquarters supported research and development activities of various constituent units of the NCERT. Other constituents of the NCERT are also maintaining libraries at their campuses. Over the years, a rich collection of books and periodicals in the field of education and allied disciplines has been created for use of scholars, teacher educators, teachers and students, etc.

### Promoting the Use of Hindi

In order to promote the progressive use of Hindi in day-to-day work in the constituents of the NCERT, a booklet titled 'Hindi Prayog Sahayika' was developed in two volumes. A folder containing official language policy, rules and regulations, duties and responsibilities of officials pertaining to the official language and certain other useful information is being developed. The Hindi Cell of the NCERT prepared 57 exemplar bilingual short notes/sentences and 100 words which have been printed inside the file covers to facilitate the use of Hindi by



als. Three meetings of the Official Language Implementation Committee of the NCERT were held to take stock of progress in implementation of the official language and the work of the constituents of the NCERT. The Hindi Fortnight was organised from 1 to 15 September 1997. During this period, Noting/Drafting, Essay Writing, Translating, Translation and Poetry Competitions were organised. Posters and Charts promoting use of Hindi were procured from the Official Language Department and supplied to the constituents of the NCERT. In order to provide information about the scientific and technical literature available in Hindi, the NCERT organised an exhibition of Hindi books. An Orientation-cum-Training Workshop was organised at RIE, Bhopal to promote the use of Hindi. A Training Programme in Hindi Typing and Monography was also organised for the officials of the NCERT. The Hindi Cell continued providing assistance in translating administrative documents and papers of the constituents of the NCERT.

#### **Programme Planning, Monitoring and Evaluation**

Heads of constituents/departments of the NCERT continued monitoring of implementation of the approved programmes. The programmes of some constituents were also reviewed by the Director/Joint Director, NCERT. The entire process of planning and implementation of programmes of various constituents of the NCERT continued to be a collaborative venture of the NCERT and the States.

In order to streamline the process of planning, monitoring, implementation and evaluation, a 'Framework' was finalised in the Third Regional Meet-cum-Workshop organised at the Regional Institute of Education, Bhubaneswar. The report of the workshop containing the Framework was sent to the Education Secretaries and the SCERTs of all the States/UTs for comments and suggestions, and for adoption/adaptation.

The NCERT continued submitting periodical reports and returns about the progress of programmes and activities to the MHRD. The report of the study 'School Complex Approach for Improving the Quality of School Education' was brought out. A status study of 'Research, Development Training and Extension Activities being conducted by the Planning and Management Branches of DIETs' continued during the year.

#### **Publications**

The NCERT continued publication of school textbooks, workbooks, supplementary readers, teacher's guides, exemplar instructional materials in vocational education, research reports/monographs and educational journals. During 1997-98, 375 publications were brought out. The position of publication of journals remained as follows:

- ☐ *Indian Educational Review* : One Issue
- ☐ *Journal of Indian Education* : Three Issues
- ☐ *School Science* : Four Issues
- ☐ *Primary Teacher* : Four Issues
- ☐ *Primary Shikshak* : Four Issues
- ☐ *Bhartiya Adhunik Shiksha* : Four Issues
- ☐ *Indian Educational Abstracts* : One Issue

Five issues of the *NCERT Newsletter/Shikshik Darpan* (Newsletter in Hindi) were also brought out.

Ten new titles on vocational courses and 23 titles of supplementary reading materials in English and Hindi were brought out.

The distribution of NCERT textbooks was undertaken through a network of wholesale agents all over India. The Urdu Publications were distributed/sold through Urdu Academy, Delhi Administration, Delhi. The Publication Division,

NCERT continued entertaining orders directly from schools and individuals for supply of the NCERT textbooks, etc. Several titles published during 1997-98 were mailed as per approved mailing list and the net receipt from the sale of the publications was approximately Rs. 35.84 crores. Demands for the NCERT's unpriced publications received from a sizable number of Institutions and researchers were also met. The Regional Production-cum-Distribution Centres, one each at Ahmedabad, Sukhchar and Bangalore, continued production in their respective regions, viz. Western, Eastern and Southern. The requirements of the Northern region were met by the NCERT Headquarters at New Delhi.

As a part of the work related to dissemination of information, the Publication Division, NCERT participated in the :

1. Delhi Book Fair in August 1997
2. Ahmedabad Book Fair in January 1998
3. Calcutta International Book Fair in January-February 1998
4. World Book Fair at New Delhi in February 1998
5. Jawaharlal Nehru National Science Exhibition for Children-1997 at Gurgaon (Haryana)

The NCERT gave copyright permission during 1997-98 to the following State agencies/Boards of Education for some of the NCERT textbooks for adoption/adaptation/reprinting:

1. Haryana School Education Board, Bhiwani
2. Himachal Pradesh Board of School Education, Dharamshala, Kangra

3. Delhi Bureau of Textbooks, Delhi

4. Board of High School and Intermediate Education, U.P., Allahabad

Requirements of the NCERT textbooks received from Arunachal Pradesh, Meghalaya and Goa and Navodaya Vidyalayas were also met. The details of publications of the NCERT are given in Appendix IV.

### **Welfare Activities**

Quarters of different categories were allotted to the staff as per their eligibility and entitlement. Some more staff quarters of Type I and Type II categories are under construction at Papan Kalan. The LIC's Group Saving Linked Insurance Scheme (GSLIS) continued for the NCERT employees. Seventy-five new entrants were granted membership under GSLIS. Twenty-nine existing staff members were granted higher coverage under the scheme due to their promotion/revision of pay scales. Fifty cases of retirement claims under GSLIS were settled. Sixty-eight cases of retirement claim under GSLIS were sent to LIC for settlement. Ten cases of death claims under GSLIS were also sent to the LIC for settlement. In the meanwhile, ten cases of death claims were got settled. One thousand two hundred regular employees and 208 pensioners are availing CGHS facilities. Thirty-one Token Gifts were given to retired employees of the NCERT on superannuation. Annual Sports were organised from 20 to 23 October 1997 at the Regional Institute of Education, Ajmer. A Cultural Programme on the occasion of Foundation Day of the NCERT was organised on 1 September 1997.





## Early Childhood Education

The capacity building is being done through training of personnel at various levels and development of suitable teaching-learning material for children and teachers in regional languages. The NCERT has been providing significant inputs and academic support in the area of Early Childhood Education (ECE) through improvement in the quality of pre-school education, developing relevant resource materials, conducting training/orientation programmes and undertaking research studies.

**R**ECOGNISING the two-fold significance of Early Childhood Education (ECE)- its direct influence on development of the child and its potential contribution to the goal of Universalisation of Elementary Education (UEE)-the ECE project has been focusing on discovering and developing inexpensive non-formal and effective media of educational and entertainment value for the pre-school and early primary level children as also on developing state level expertise and strengthening of the programmes in this area. The capacity building is being done through training of personnel at various levels and development of suitable teaching-learning material for children and teachers in regional languages. The NCERT has been providing significant inputs and academic support in the area of Early Childhood Education (ECE) through improvement in the quality of pre-school education, developing relevant resource materials, conducting training/orientation programmes and undertaking research studies.

#### **Training Programme in Early Childhood Care and Education for Key Functionaries**

A three-week training programme in Early Childhood Education was organised from 12 to 30 January, 1998 for the State Level Key Functionaries. Thirty-one participants

from 14 states, including 22 participants from DPEP states and 9 participants from ECE Project States, participated in the programme. The report of the training programme highlighting the methodology and contents of training has been prepared.

#### **Indicators for Monitoring Children's Progress**

A two-day workshop was organised for finalisation of indicators for monitoring the progress of children in ECE centres. Twenty participants participated in the workshop including participation of ECE Cell, SIE, Allahabad, *Bal Niketan Singh*, Indore, NIPCCD, Delhi, LRC Colleges of Education, *Andhra Mahila Sabha* and Play House, Bangalore. The Workshop finalised the indicators for monitoring of children's progress.

#### **Fundamental Rights of Child to Education**

A one-day national meet was organised on Early Childhood Care and Education on 25 March 1998 in the context of the fundamental rights of the child to education upto the age of 14 including the pre-school stage. The neglect of pre-school children in the coverage of the proposed 83rd Constitution Amendment Bill on Fundamental Rights to Elementary



**Meeting on Early Childhood Education for finalising next Master Plan of Operation**



education, covering children from 6 to 14 years, caused great deal of concern and during the meeting the group tried to re-word the contents of the bill to provide coverage for children upto the age of 14 as was the case earlier. The group also decided to finalise the modifications sought with the help of legal experts before sending its recommendations to the Government. The meeting was attended by the Secretary, Education, Secretary, Women and Child Development, and experts in ECCE from all over the country.

### **Status Study of Creches in Delhi**

A status study of creches in Delhi was conducted and a draft Report was prepared. The Report is being finalised for dissemination.

### **Workshop Training for Creche Workers**

As part of activities associated with the development of NCERT's Creche, two workshops were conducted. The first workshop of three days, duration devoted one day each for : (i) toy making; (ii) infant stimulation; and (iii) puppet making. The second workshop of two days' duration devoted on additional component of story telling and rhymes. Fifteen participants including participants from the All India Women's Conference, New Delhi and the JNU Creche participated in the workshops.

### **National Seminar-cum-Review Meeting on ECE**

A National Seminar-cum-Review meeting on ECE was held at NCERT from 7 to 8

January 1998. The participants included the Directors, ICDS of the ECE Project States, Directors of concerned SCERTs, Unicef representatives of the states and ICDS functionaries from the Department of Women and Child Development, MHRD. The progress made in the states during the last five years was presented by the states. On the basis of work done so far, future guidelines for preparing future Plan of Action in the next Master Plan of Operation (MPO) were discussed and finalised. A report containing guidelines for activities to be taken up on priority basis during the next MPO has been prepared and are being disseminated.

### **Regional Level Inputs**

The RIE, Bhopal developed a Model for Pre-Primary Education for Goa.

### **Reports and Other Materials Brought Out during 1997-98**

1. Five Picture Books in Early Childhood Education for Children with Special Needs.
2. Manual 'Aap Ki Anganwadi Aap Ka Sawal'.
3. A Manual of Minimum Play Materials for Anganwadis .
4. Films titled *Ek Sarthak Shurvat* (depicting linkage between pre-school and primary school).
5. Film titled *A Training Methodology for Pre-School Education*.
6. Audio programmes *Khilte Phool* along with the catalogues (produced to supplement training as a part of training package).





# 4

## Primary Education

Collection of information, its cataloguing and computer feeding is in progress in the NDU for Pre-School and Elementary Education. An information brochure-cum-catalogue about the NDU has been brought out. A quarterly newsletter *Glimpses* is (being regularly brought out and widely disseminated) acts as a clearing house for educational news. Steps are being taken to publish the document on non-print material (video) available in NDU.



**W**ITHIN the broad frame of Universalisation of Elementary Education (UEE), significant emphasis is being given to issues and problems related to primary education. The efforts are geared towards improvement of the quality of primary education by developing relevant resource materials, conducting training and undertaking research studies in important areas of concerns.

#### **National Documentation Unit (NDU) for MLL and ECE**

Collection of information, its cataloguing and computer feeding is in progress in the NDU for Pre-School and Elementary Education. An information brochure-cum-catalogue about the NDU has been brought out. A quarterly newsletter 'Glimpses' (being regularly brought out and widely disseminated) acts as a clearing house for educational news. Steps are being taken to publish the document on non-print material (video) available in the NDU.

#### **Journals**

Two quarterly journals namely *The Primary Teacher* in English and *Primary Shikshak* in Hindi are a regular and on-going features of the NCERT. These journals provide an

open forum for exchanging views and news about innovations in Primary Education and cater mainly to primary practising classroom teachers and teacher educators. The journals focus on articles of interest on various educational issues. All the four issues of both the journals for 1997-98 were brought out and disseminated.

#### **Primary Years — Towards A Curriculum Framework**

For improving quality in primary education and current concerns related to the Universalisation of Primary Education (UPE), the NCERT organised a seminar in December 1996 to review the priorities in curriculum at primary stage. The Seminar recommended that a document be brought out providing framework and guidelines for formulation of curriculum at the primary stage. As a follow up, several workshops were planned and conducted during 1997-98 and drafts of Part I and Part II of the document were prepared. The document *Primary Years: A Curriculum Framework* is characterised by its unique and different treatment to stages of primary years. Part I of the document has emerged in its final shape providing the framework in curriculum development and implementation. It comprises of seven



chapters. Part II of the document will detail the different curriculum areas and is under preparation. A detailed blueprint with strategies of development and training of instructional materials at primary stage was finalised in collaboration with participating agencies in a three-day planning workshop.

### **A Critical Review of Researches in Elementary Education**

This study has been designed to document the researches conducted on issues related to Elementary Education in universities, teachers training colleges and other research institutions. Its main purpose was to disseminate the good work done at various places and make it available to institutions, scholars, educators and educational planners. Efforts have been made to identify the factors that impede UEE and devise research based measures for minimising or neutralising their adverse effects on schooling. The Report of the study is being prepared.

### **Training of Key Primary School Teachers**

A group of 80 key primary school teachers of the Bharatiya Vidya Bhavan School was trained in new approach and methods of teaching learning at primary stage. The NCERT provided resource support to the programme organised by the Bharatiya Vidya Bhavan, Delhi from 16 to 20 March 1998.

### **Evaluation of the Balika Shivar Programmes under the Lok Jumbish**

The *Balika Shivar* programme is innovative strategy adopted by the *Lok Jumbish* to make the educational programme sustainable by intervening at community level. Two teams visited Abu Road and Bikaner with the objectives of evaluating the *Balika Shivar* programmes for their effectiveness in terms of learning of girls participating in the programme. The tools have been developed for undertaking evaluation.

### **Art Education Curriculum**

A three-day workshop was organised to develop curriculum in the area of Art Education. Discussions were held to finalise the broad areas of Art Education Curriculum.

### **Regional Level Inputs to Primary Education**

The RIE, Ajmer developed and tried out training packages on teaching of Science and Mathematics at the Upper Primary level and oriented DIETs faculty and Primary school teachers in continuous and comprehensive evaluation. Key Resource Persons, DIETs faculty, and Urdu teachers at Elementary level were also trained in the teaching of Urdu language.

The RIE, Bhopal developed competency based learning materials and supplementary learning materials at the primary level. The textbooks were reviewed in the context of MLLs. A Conference of Primary teachers of the Demonstration Schools was organised on Competency Based Teaching-Learning Strategies to share the progress and experiences.

The RIE, Bhubaneswar developed : (i) a training package for DIETs faculty on learning difficulty; (ii) a Video Programme on *Bio-Energy* under EVS-II for Upper Primary students of Orissa; and (iii) Training Strategies to ensure Effective Participation of local communities/*Panchayats*/Municipalities for better functioning of Primary Schools.

The RIE, Mysore developed a training package on Motivation of Primary School Teachers of Andhra Pradesh. The DIETs faculty of Tamil Nadu, Pondicherry and Karnataka were provided training in Physical Education to promote games at Primary level.

Regional research seminars were conducted in the RIEs at Ajmer, Bhopal, Bhubaneswar and Mysore on *Teacher*



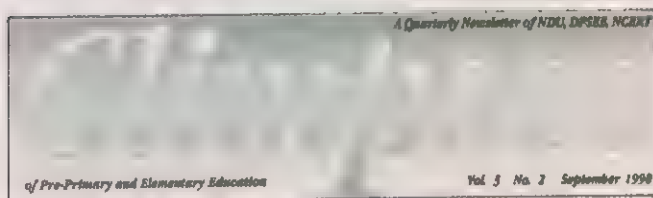
Empowerment and School Effectiveness at the Primary stage as a prelude to International Seminar to be conducted at New Delhi on this topic.

### Reports and Other Materials Brought Out during 1997-98

1. Book of Activities (typed)
2. Universalisation of Elementary Education (Research Trends and Educational Implications) (xeroxed)
3. Policies and Functioning of BRC and

CPS in Maharashtra : An Assessment (xeroxed)

4. Seminar for Professional Organisations for Advocacy in ECE (xeroxed)
5. Early Childhood Care and Education in DPEP-I : Assessment Report (typed)
6. *Primary Shikshak* (4 Issues)
7. *Primary Teacher* (4 Issues)
8. 'Glimpses' Newsletter (4 Issues)
9. Steps to Learn 3R's (A Manual for the Pre-School Teachers and Teacher Educators) (typed).



We are happy to bring to you the fourth issue of our quarterly newsletter Glimpses of Pre-Primary and Elementary Education.

Glimpses aims primarily at providing a forum for sharing of experiences, ideas and innovations in the areas of Early Childhood Education (ECE) and Primary Education at the national level. We have been receiving contributions from our readers. It is our confident that much more innovative work is being done in these areas which is not getting disseminated. We request our readers to take advantage of this forum to share their views and experiences.

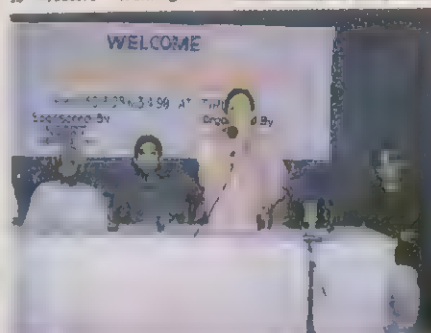
Venita Kaul,  
General Editor

### Non-formal Education for Universalizing Elementary Education NCERT's Efforts

From 30 March to 3 April 1998, about 50 participants from various voluntary organizations from the States of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu gathered at Krishi Vigyan Kendra (RAAS) Arjuncypuram, near Tirupathi, to receive training in

operationalizing Non-formal Education (NFE) projects that they have been sanctioned by the Ministry of Human Resource Development, Government of India, in a participatory mode, sharing their experiences, solving their problems, clarifying their concepts, understanding and trying out, rel-

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# 5

## **Non-Formal Education and Alternative Schooling**

Efforts were made towards creating a strong resource base at the state level organisations as well as the voluntary organisations through regional process-oriented training programmes. Voluntary organisations of different States were assisted in the training of NFE functionaries to act as a resource team for their States.



**T**O PLACE the Non-Formal Education (NFE) on sound footing, the NCERT has been concentrating on resource development, development of teaching-learning materials and identification of strategies for alternative schooling. Efforts were made towards creating a strong resource base at the state level organisations as well as the voluntary organisations through regional process oriented training programmes. Voluntary organisations of different states were assisted in the training of NFE functionaries to act as a resource team for their states. They were trained in the scrutiny and analysis of NFE materials and provided practical training in effective transaction of teaching-learning materials in the NFE Centres. All materials developed as prototype are open for adaptation, modification and free use by the user agencies-whether state or NGO. Highlights of the programmes undertaken during 1997-98 are as follows.

### **Development**

#### ***Learner-specific Materials for Street and Working Children***

Four workshops were organised to develop materials for street and working children,

girls living in the slum areas, children working in *dhabas*, repair-workshops etc., involving refinement of vocabulary list of children engaged in various activities separately, its gradation, coverage in various lessons, development of lessons, teacher's notes for transactional process. The manuscripts are ready for finalisation.

#### ***Academic Guidelines for NFE Programme at Upper Primary Level***

With a view to developing capacity in textbook writing at Upper Primary Stage, competencies were identified and guidelines were developed in the areas of Language (Hindi, English), Mathematics, Science, Social Science and Work Experience for curriculum framers and material developers.

#### ***Textual Materials in Mathematics for the First Year of the Middle Stage of NFE***

After identifying the competencies earmarked for Class VI of formal schools, the guidelines for the authors of instructional materials were reviewed and the competency-based textual materials developed were modified. Fresh materials in Algebra and Geometry were developed on similar lines.



Academic guidelines were developed in one of the workshops for NFE at Upper Primary level.

### **Supplementary Materials for Reinforcement of Comprehension Skill in Children**

The Supplementary Reader-I was reviewed and finalised. Additional material for second supplementary reader was developed, reviewed and modified.

### **Training**

#### **Training of NFE Faculty Members of SCERTs/SRCs in NFE and Alternative Schooling**

A training programme was organised for 34 participants from Delhi, Himachal Pradesh, Haryana, Jammu and Kashmir, Madhya Pradesh, Uttar Pradesh, and Rajasthan at the SCERT, Gurgaon to sensitise the participants to the materials and innovations developed for primary level, reviewing of the NCERT model having the cycles of 12,10,8 days on the basis of difficulties faced by the states in its execution, sensitisation and environment building for future work in NFE at upper stage and capacity building for the same, and advocacy for assistance to states of NGO's Projects through Pre-Sanction Appraisal (PSA), Joint Evaluation Team (JET) and the role of SCERTs vis-a-vis *Panchayati Raj* Institutions and Local Self Government.

#### **Resource Development in States and Voluntary Agencies**

Two Training programmes were held at the SCERT, Udaipur and RASS, Tirupati to provide a forum for sharing the experiences of various voluntary agencies, bringing Government and NGO's together for sorting out administrative and academic problems, needs for self evaluation, helping JETs and PSAs, interacting with PRIs and local communities and establishing close working relationship with SCERTs, SRCs and DIETs.

### **Research**

Under the DPEP sponsored research on

Interlinkage of DPEP Structures and *Panchayati Raj* Institutions, the field work has been completed in two States and intensive interviews have been carried out.

### **Evaluation**

The MHRD, Government of India, under its grant-in-aid scheme, provides hundred per cent financial assistance to various voluntary agencies for carrying out innovations and experimentation in Elementary Education, including NFE. At the instance of the MHRD, the NCERT undertook the responsibility of organising review meetings where the voluntary agencies engaged in such experimentations would come together and share their views with each other and steps could be taken for wider dissemination of information on educational innovations. A Peer Group review of innovative and experimental projects in the area of Non-Formal and Elementary Education was undertaken from 24 to 26 November 1997. Twenty-five voluntary agencies getting grants from the MHRD, Government of India, participated in the review meeting. These were required to make a presentation of the progress made by them under the four major areas viz., objective of the project, methodologies adopted, extent to which objectives have been achieved and the major problems faced and how these were solved. The peers were requested to make suggestions for overcoming persisting problems. The educational experts also offered suggestions. This meeting provided unique opportunity of sharing experiences among NGO-peer groups, benefit with each other's experiences and making adaptation for replications wherever possible. Thirty-seven participants from Andhra Pradesh, Bihar, Chandigarh, Delhi, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh and West Bengal attended the review meeting.

### **Extension**

Besides organisational level programmes



and activities in the NCERT, consultancy was provided to various governmental and voluntary organisations working in the field of Non-Formal Education.

### Regional Level Inputs to Non-Formal Education

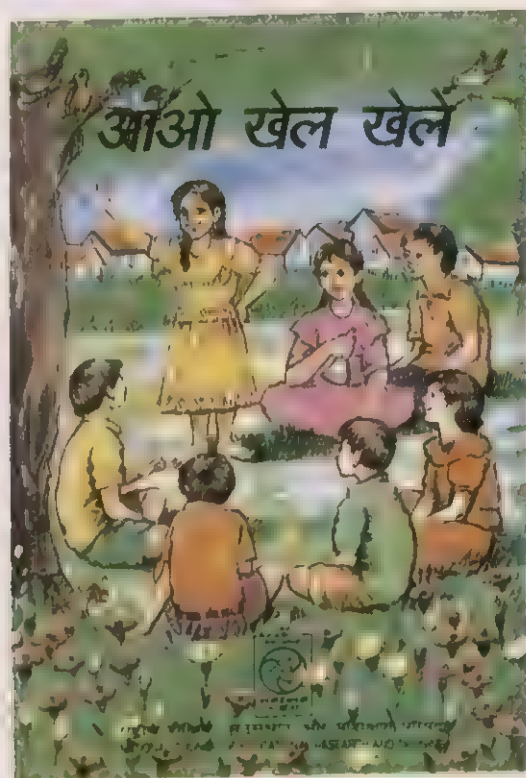
The NCERT, Bhopal developed supplementary materials in Non-Formal Education and Alternative Schooling and completed evaluation of Alternative Schooling Project of the Rajiv Gandhi Prathmic Shiksha Mission (RGPSM) in six districts of Madhya Pradesh. Induction and enrichment level training to Key Resource Persons of Madhya Pradesh and DRU, members of Directorate of Maharashtra, Goa and Gujarat was also imparted.

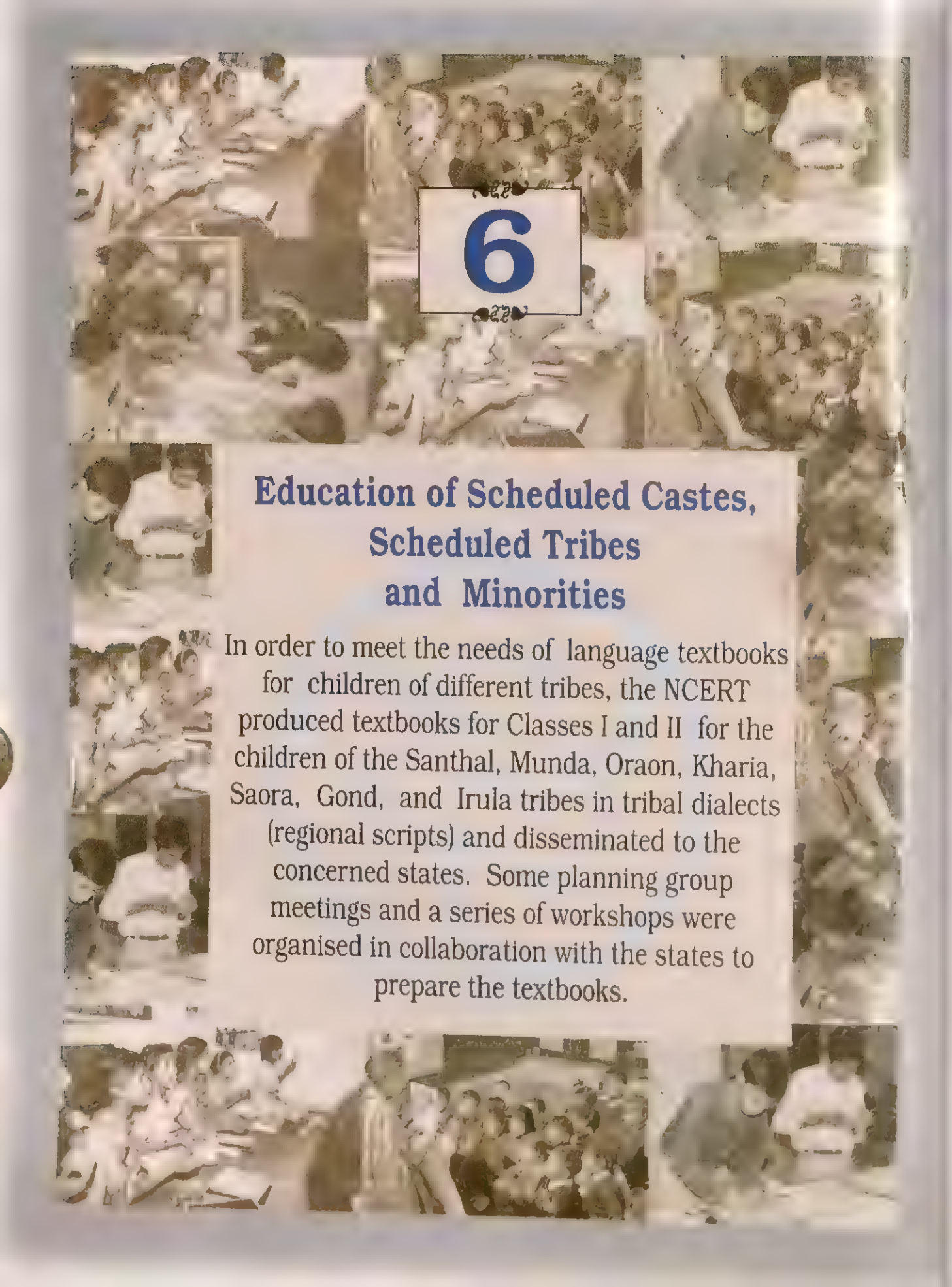
The RIE, Mysore prepared Mass media Materials on competency-based teaching

for Non-Formal Education centres of Tamil Nadu.

### Reports and Other Materials Brought Out during 1997-98

1. Academic Guidelines for NFE Programme at the Upper Primary Level (xeroxed)
2. National Seminar on Non-Formal Education and Alternative Schooling (xeroxed)
3. *Milker Seekhein: Bhasha Bhag 4*
4. *Milker Seekhein: Privesh Bhag 3*
5. *Milker Seekhein: Privesh Bhag 4*
6. *Kahanion Ki Phulwari*
7. *Kaam Ki Baten*
8. *Aao Geet Gayen*
9. *Chutikulo Ka Pitara*
10. *Aaao Khel Khele*





# 6

## **Education of Scheduled Castes, Scheduled Tribes and Minorities**

In order to meet the needs of language textbooks for children of different tribes, the NCERT produced textbooks for Classes I and II for the children of the Santhal, Munda, Oraon, Kharia, Saora, Gond, and Irula tribes in tribal dialects (regional scripts) and disseminated to the concerned states. Some planning group meetings and a series of workshops were organised in collaboration with the states to prepare the textbooks.



**W**ITH a view to hasten the process of Universalisation of Elementary Education (UEE), the NCERT is giving special emphasis on matters related to education of groups with special needs such as Scheduled Castes (SCs), Scheduled Tribes (STs) and Minorities. Highlights of the programmes conducted in this area during 1997-98 are given below.

### **Efficacy of Ashram Schools**

The study aimed at determining the efficacy of the Ashram schools, catering to the educational needs of tribal children, in terms of learning materials, teaching-learning process and achievement. In order to conduct case studies of some schools selected from Andhra Pradesh, Gujarat, Orissa and Madhya Pradesh, tools in the form of questionnaires, interview schedules etc. have been prepared. These tools are in the process of pre-testing and finalisation.

### **Textbooks in Tribal Dialects**

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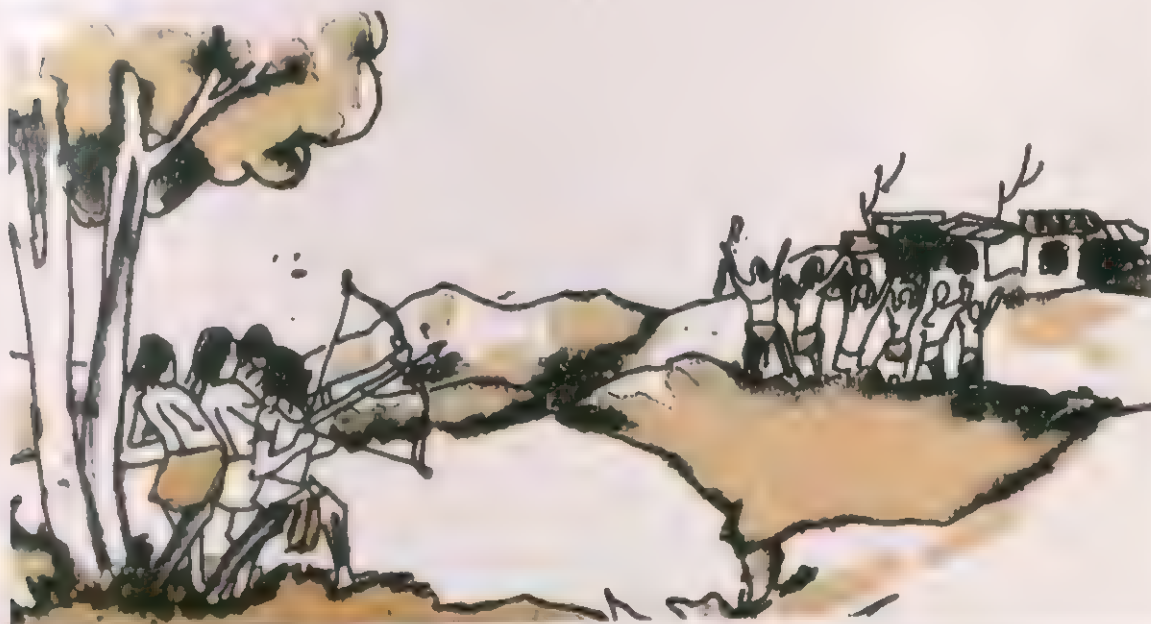
Irula tribes in tribal dialects (regional scripts) and disseminated to the concerned states. Some planning group meetings and a series of workshops were organised in collaboration with the states to prepare the textbooks. The manuscripts of textbooks in 'Warli' and 'Rathwa' tribal dialects of Gujarat and Santhali, Mundari, Kurukh, Ho and Kharia of Bihar were finalised in the workshops held at Ahmedabad and Ranchi respectively.

### **Supplementary Materials for Tribal Students**

With a view to make education interesting for tribal students, increasing their retention in schools and inculcating a sense of cultural pride and national integration among tribes, the NCERT prepared supplementary reading materials for different tribes with the cooperation of experts/writers well acquainted with tribal life and culture. The manuscripts of supplementary reading materials developed for Saora and Kondh tribes of Orissa were also finalised.

### **Attitudinal Training Programme**

Three conceptual workshops were held for identification of the attitudinal issues and



development of the methodology and the training activities for changing attitude of non-tribal teachers towards tribal children in their community. Forty tribal area teachers were involved in development of this package and around 3,000 teachers were trained through Cascade mode.

### **Handbook on Educational Development of the Scheduled Castes**

A 'Handbook of Information for Teachers on Educational Development of the Scheduled Castes' was developed to understand better the problems of Scheduled Castes children in learning situations.

### **Education of Minorities**

#### ***Curriculum in Maktab/Madrasas***

This study conducted in Kerala, Uttar

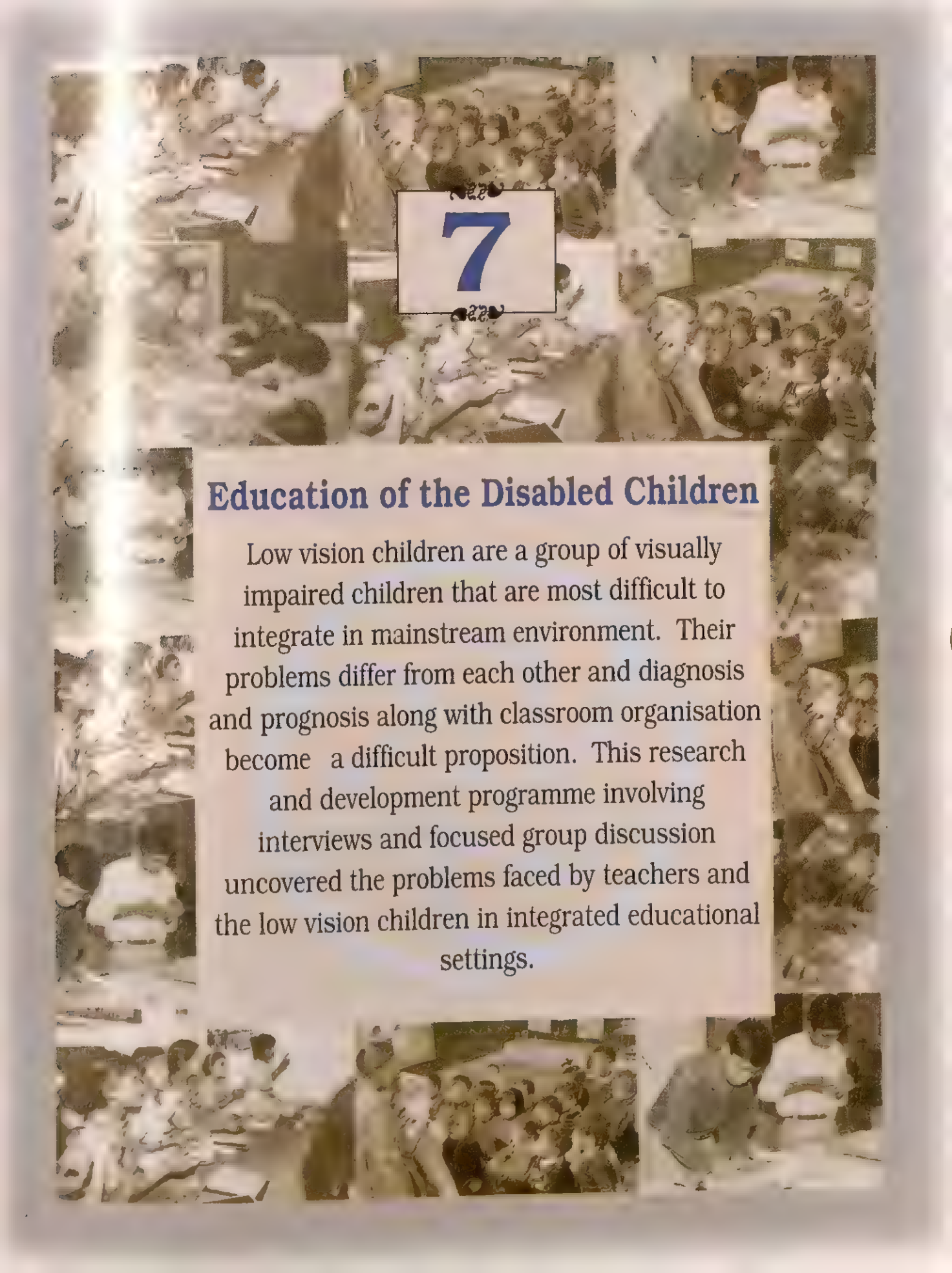
Pradesh and Madhya Pradesh aimed at analysing the content of existing curriculum of Madrasas/Maktabas and suggesting modifications in terms of specific Minimum Levels of Learning (MLLs) at the primary level to fill up gaps, if any. Data has already been collected from Madhya Pradesh, and is being collected from Uttar Pradesh and Kerala. An opinionnaire was finalised for the functionaries in Maktabas/Madrasas for assessing the needs of these traditional institutions.

### **Regional Level Inputs**

The RIE, Bhopal conducted an orientation programme for the supervisory staff of Tribal Development Department of Madhya Pradesh in Educational Supervision and Guidance.







# 7

## Education of the Disabled Children

Low vision children are a group of visually impaired children that are most difficult to integrate in mainstream environment. Their problems differ from each other and diagnosis and prognosis along with classroom organisation become a difficult proposition. This research and development programme involving interviews and focused group discussion uncovered the problems faced by teachers and the low vision children in integrated educational settings.

**T**HE NCERT has been undertaking several programmes/projects to meet the educational needs of children with physical and intellectual disabilities. Highlights of the programmes and activities undertaken during 1997-98 in this area are as follows.

### **Teaching of Hindi Language to Hearing Impaired Children in Integrated Schools: A Handbook for Primary School Teachers**

Focussing on Children of Classes I and II, the project involved identification of difficulties faced by the hearing impaired children through interviews with the teachers and questionnaires for the hearing impaired children in integrated schools and special schools. The data was also collected from secondary sources to find out the possible areas of language difficulties. A handbook has been developed to assist primary school teachers, teacher educators and educational planners in planning teaching of Hindi language to the hearing impaired children in integrated settings.

### **Handbook for Teachers of Low Vision Primary School Children**

Low vision children are a group of visually

impaired children that are most difficult to integrate in mainstream environment. Their problems differ from each other and diagnosis and prognosis along with classroom organisation become a difficult proposition. This research and development programme involving interviews and focused group discussion uncovered the problems faced by teachers and the low vision children in integrated educational settings. On the basis of assessed needs, the manuscript of the handbook for providing concrete guidelines to integrate children with low vision in mainstream environment has been developed.

### **Resource Facilities in Common Schools for Children with Special Educational Needs: A Guide Book**

The Guide Book developed by the NCERT includes details concerning organisation of a resource room in a normal school where the disabled children are to be integrated. Among others, this Guide Book will be useful for the Kendriya Vidyalayas, other Government Schools, voluntary agencies and private schools involved in this kind of work.





## **Integration of the Disabled Children in Mainstream**

Under the District Primary Education Programme the NCERT is providing resource support for integration of the disabled children in ordinary schools. In the district where the Blocks have been selected for this purpose, resource support is being provided by the NCERT for implementation of integrated education, planning, management, formulation of action plans, development of teacher training modules, and for general sensitisation and community mobilisation programmes. During 1997-98, assistance was provided to Madhya Pradesh, Uttar Pradesh, Kerala, Maharashtra and Haryana to formulate their Plans of Action for the year 1998-99.

### **Strengthening of IED Cells in terms of Capacity Building and Manpower Development for Successful Implementation of Integrated Education of the Disabled Children in the States**

The project focusses on promoting implementation of integrated education of the disabled children in the states to facilitate achieving the target of Education for All in the country. This involved training of teacher educators and finalisation of teaching strategy by which the special needs of the children could be met in the classroom. A two-day workshop was organised to share the experiences drawn from the Project Integrated Education of the Disabled (PIED) with the State Directors of Education and the Deputy Directors of IED Cells. A report giving recommendations for implementation of integrated education of the disabled was finalised.

### **Integrated Education of Children in Kendriya Vidyalaya Schools**

Resource support was provided for planning and management of integrated

education of the disabled in the Kendriya Vidyalayas. Suggestions were given in the area of teacher training, pre-school intervention, identification, assessment and creation of teacher-free environment in the light of their special needs.

### **Regional Level Inputs**

The RIE, Bhopal developed a three-month training course for key persons of DIETs and a training module for the Orientation of Master Trainers in Integrated Education of Disabled (IED).

### **Reports and Other Materials Brought Out during 1997-98**

1. Strengthening Integrated Education for Disabled Children: A Report (typed)
2. Evaluation of MCTTP: Findings of a Research Study (typed)
3. ☐ Production Systems: A Learning System Device. (Published in the Journal of Indian Education)  
☐ Stress Management in the Visually Impaired (Published in the Indian Journal of Disability and Rehabilitation)  
☐ Mainstreaming Children with Special Needs: Teacher Initiatives (Published in the Newsletter-Glimpses)
4. Handbook of Low Vision Primary Teachers (typed)
5. Report of the Workshop of the State Education Secretaries on Implementation of Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 (typed)
6. Report on Status Study of IEDC in States for DPEP (typed)
7. Stress: It is only a Headache (Published in Swagat Magazine)



# 8

## **Education of the Girl Child**

The NCERT continued assisting and advising the Central and the State Governments in implementation of the National Policy on Education (NPE)-1986 (with modifications undertaken in 1992) with respect to Education for Women's Equality and Empowerment. This Organisation acts : (i) as a National Resource Centre for Women's Education and provides consultancy to the United Nations and certain other international organisations.



**T**he NCERT continued assisting and advising the Central and the State Governments in implementation of the National Policy on Education (NPE)-1986 with modifications undertaken in 1992 with respect to Education for Women's Equality and Empowerment. This Organisation acts : (i) as a National Resource Centre for Women's Education and provides consultancy to the United Nations and certain other international organisations; and (ii) as a nodal point for women's education for SAARC activities. Interventions are made in the areas of policy planning, curriculum and teacher education for removing gender disparities and gender bias.

#### **National Seminar-cum-Workshop on Fifty Years of Women's Education in India -1947-97**

A two-day National Seminar-cum-Workshop was organised on 18-19 September 1997 at the NCERT, New Delhi with the objectives: (i) to assess the progress made in the education of girls and women in the last fifty years in India (1947-97); (ii) to identify critical issues in the education and development of girls; and

(iii) to work out future direction for education of girls and women towards achieving the ultimate goal of gender equality. The Seminar was attended by over 100 leading educationists including State Education Secretaries, Directors of Public Instructions, Directors of SCERTs and experts working in the area of women's education and development. The five technical sessions of the workshop focused on : (a) Early Childhood Care and Education (ECCE); (b) Universalisation of Elementary Education (UEE) with a Focus on the Girl Child; (c) Second Level General, Vocational and Technical Education; (d) Women Empowerment through Curriculum and Transaction; and (e) Education of Out-of School Girls. The Seminar made several valuable recommendations in these areas.

#### **National Conference on Education of Muslim Girls: Issues and Strategies**

A two-day Conference was organised to take stock of the present state of education of the Muslim Girls and suggest workable strategies and action programmes. Leading educationists, Muslim organisations like Jamaat-e-Islami Hind, Samstha Kerala



**Head, DWS (extreme right) is all for Shiksha Utsav in rural areas**

Sunni Vidhaya Bhasa, Hamdard Education Society, Central Wakf Council, Aligarh Muslim University, Maulana Azad Education Foundation and representatives from various states participated in the conference. The conference was inaugurated by Dr. Tahir Mahmood, Chairman, National Commission for Minorities. Several valuable suggestions were made to provide school education to Muslim girls and bringing them in the mainstream.

### **Textbooks and Gender Bias**

Guidelines and tools for evaluation of textbooks from the standpoint of gender bias have been developed for the use of those preparing and revising the textbooks and supplementary reading materials. During the year 1997-98, textbooks of Standards I and II of Maharashtra State were evaluated from the standpoint of gender bias and gender stereotyping.

### **Innovative Pilot Project on Promotion of Primary Education of Girls and Disadvantaged Groups in Haryana**

The Project which aims at galvanizing the entire state machinery for promoting UEE among girls and disadvantaged groups and for creating positive climate for education of girls and empowerment of women was implemented in two major phases. During the first phase, the emphasis was on gender sensitisation of educational functionaries and advocacy campaigns for generating a pro-girl child climate. The second phase of the project was to create a school environment which not only focused on gender equality but also placed equal emphasis on joyful learning and quality improvement in school environment. The major elements of the programme in the second phase during 1997-98 were: (i) advocacy for education of the girl child; and (ii) school based programme on quality; and gender equality covering improving school infrastructure and total school ambience in terms of cleanliness,

aesthetics, mass participation of children in singing, plays, physical training, love for reading (setting up of Books/Library Corner), drawing, neat handwriting and attractive blackboards and bulletin boards, maps and charts adorning the walls, and above all active, happy teachers who would turn the school into a creative and joyful experience for children with community support and participation.

The strategies for implementation were planned in a meeting with SCERT faculty and head teachers of all 68 primary schools of the Block. About 286 teachers were oriented. Six awareness campaigns (*Shiksha Utsavs*) were organised in different locations catering children and teachers from the surrounding 10 to 12 villages. The final *Shiksha Utsav* was attended by over 2000 children from all 68 schools of the Block, close to 300 primary teachers, head teachers and educational administrators, and an equal number of Panchayat members, parents and Mahila Mandal (women's groups) members.

### **Reports and Other Materials Brought Out during 1997-98**

#### **Reports**

1. Innovative Pilot Project on Promotion of Primary Education of Girls and Disadvantaged in Haryana: Handbook (English and Hindi) (xeroxed).
2. Six Posters on Gender Equality (xeroxed)
3. Audio Cassette on Songs related to education of girls and women and issues of equality (xeroxed)
4. Report of National Seminar-cum-Workshop on Fifty Years of Women's Education in India (1947-97) (xeroxed)
5. Methodology of Women's Education and Development: Training Manual 1997 (xeroxed)
6. Report on Eighth Training Programme on Methodology of Women's Education and Development (xeroxed)



7. UNESCO sponsored Innovative Pilot Project on Promotion of Primary Education of Girls and Disadvantaged Groups in Haryana: Evaluation Report: 1997 (xeroxed)
8. UNESCO sponsored Innovative Pilot Project on Promotion of Primary Education of Girls and Disadvantaged Groups in Haryana: Report (Phase III) 1997 (xeroxed)
9. Study Visit of Educational Personnel: Female Secondary School Assistance Project of Bangladesh (1997) (xeroxed)
10. Proceedings of the Steering Group Meeting on Education of Muslim Girls

in India held on 4 December 1997 (xeroxed)

11. Evaluation of Standards I and II English and Mathematics Textbooks of Maharashtra States (xeroxed)

### **Publications**

12. Women Who Created History
13. Situation of Girls and Women in Delhi
14. Legal Literacy for Educational Personnel with Focus on Women and Girls
15. *Balika Sakaratmak Atm Bodh Vikas: Resource Material for Primary Teachers and Head Teachers.*





# 9

## Education in Science and Mathematics

The present curricula and textbooks for the secondary stage were developed after the adoption of the National Policy on Education (NPE)-1986. During 1997-98, the NCERT reviewed the curricula in Science and undertook writing of textual materials at the secondary stage.



**T**he NCERT has been making continuous and sustained efforts to improve the quality of Science and Mathematics Education in schools. It performs the role of 'think tank' for quality improvement and carries out research, development, training, evaluation and extension activities. The major developmental activities include: (i) curriculum development in Science and Mathematics for all stages of school education; (ii) development of prototype curricular materials in Science and Mathematics for learners and teachers; and (iii) textual materials in Science and Mathematics. Elements of Environmental Education are woven through the entire curriculum.

Experiments with teaching-learning strategies involving new methods and technologies are conducted. Activity-oriented three dimensional models and laboratory skills for effective teaching-learning of concepts in Science and Mathematics are designed and developed. Steps for nurturance programmes are undertaken. Study guides and challenging problems, developed in various disciplines, are used for conducting nurturance programmes. Diagnostic tests and remedial materials are also developed for

weaker students. Other important activities include popularising Science through production of popular reading materials, supplementary books, promotion of out-of-school activities which include Science Exhibitions and dissemination of scientific innovations, concepts etc., through the quarterly journal 'School Science'.

### Renewal of Science Curriculum

The present curricula and textbooks for the secondary stage were developed after the adoption of the National Policy on Education (NPE)-1986. During 1997-98, the NCERT reviewed the curricula in Science and undertook writing of textual materials at the secondary stage. The drafts of the textbooks for Class IX are being finalised. While reviewing the curricula and the syllabi, the practising teachers, teacher educators and representatives of some Boards of Secondary Education were involved. The content suggested for Class IX has been reorganised in different chapters and learning objectives for each chapter have been developed.

At the upper primary stage, attainment of science process performance skills were worked out. A specific study was made on



**Laboratory Manual, regarding uses of teaching aids/models pertaining to mathematics, being developed.**

the length measuring skills of Class VI students.

### **Renewal of Mathematics Curriculum**

A group of subject experts/teacher educators and teachers from various organisations including some members of the courses committee of the CBSE reviewed and finalised the existing syllabus in Mathematics for the secondary stage. The focus of review was on the workability and suitability of the Mathematics syllabus in classroom situation.

### **Video Modules on Process Based Curriculum in Mathematics at the Primary Level**

In order to enhance the conceptual understanding of basic operations in Mathematics, three video modules have been developed on process based curriculum in Mathematics at the primary level.

### **Laboratory-Oriented Programmes in Science and Mathematics**

#### *Laboratory Skills in Chemistry*

Experimental work in Chemistry at the senior secondary stage was undertaken with a distinct objective to prepare students for acquisition of cognitive knowledge and manipulative skills in Chemistry such as skill of weighing with a chemical balance, preparing solutions of various substances of a desired concentration, analysing samples of unknown composition and of new compounds and recording of data, etc. A manual on laboratory skills was developed to provide guidance to students/teachers in Chemistry at the senior secondary stage. This material on laboratory skill was further tried out and revised.

### **Development of Worksheets**

In order to further develop the laboratory skills in Chemistry among the students at the senior secondary stage, worksheets based on the practical course developed

earlier were discussed and finalised and some more worksheets were developed for Class XI.

### **Models and Experiments**

The NCERT undertook the task of designing and developing activity oriented 3-D models and developed improvised low cost experiments for selected formal level concepts in Chemistry for the Senior Secondary stage. The write-ups prepared for 40 experiments were comprehensively reviewed.

### **Activity Manual in Biology**

An activity based manual in Biology for the Senior Secondary stage was prepared. The list of activities contains some futuristic aspects of activities in Biology which may need special re-orientation of Biology laboratory in the schools.

### **Activities in Mathematics Laboratory**

A draft laboratory manual regarding use of various teaching aids/models based on the activities pertaining to Mathematics at the upper primary/secondary/senior secondary stages has been prepared.

### **Nurturance of Talent in Physics**

A model Physics Talent Nurturance Programme at the senior secondary stage was developed and tried out successfully on the National Talent Search (NTS) awardees studying in senior secondary classes in Delhi and some other nearby areas. A booklet titled 'A Model Nurturance Programme in Physics for the Talented' has been developed in which students' responses to a questionnaire have been incorporated. A module covering various areas in Physics has been developed which is being used as a 'study guide' for students.

### **Popularisation of Science and Mathematics**

Under the project Reading to Learn which



aims at developing modules/books in those important areas of Science and Mathematics which are normally not covered by school curriculum but are emerging contemporary areas of Science, nearly 30 books have already been developed. During 1997-98, writing of new books was undertaken on several important new topics in Science, such as Communication, Carbon-60, Multimedia, Seismology and Earthquake, Geophysical Prospecting, Finger Printing, Hargobind Khurana and Genes, Dr. Saha and his Formula and Medicinal Plants. The manuscripts of the books: (i) *Root Se Nylon Tak*; (ii) *Mausam—Kab Aur Kaise*; and (iii) *Our Plants* were finalised.

The books under the Reading to Learn project are originally written in Hindi. There is a lot of demand for these books. More than 10,000 copies of some of these books have already been sold out and their reprint editions are being brought out. In this project, some of the top scientists of our country are associated and are contributing to the cause of children and helping in popularisation of Science.

Under the project titled 'Some Interesting Topics in Chemistry', four modules were already developed. During 1997-98, a module on 'Inorganic Fibres' was developed.

### **Training of Resource Persons/Teachers**

The NCERT organised four fifteen-day training programmes in Physics, Chemistry, Mathematics and Biology for approximately 120 PGTs of Navodaya Vidyalaya Samiti. The programmes aimed at developing competence in content/concepts and laboratory skills in related subject areas.

A training programme was also organised for TGTs in Mathematics of the Central Tibetan School Administration to develop competence to handle the curriculum effectively. Resource support

was provided in the Conference on Mathematics organised by the Department of Education, CTA, Dharmashala in collaboration with the Central Tibetan School Administration, New Delhi. Remedial measures suggested to overcome the problems of the teachers through various illustrative examples, such as motivating the students and the use of teaching aids in the classrooms. NCERT's expertise was also extended in training of teachers of several other schools including schools under the DAV Management.

### **School Science**

The 'School Science', a quarterly journal, provides a forum to the teachers, researchers and students for dissemination of innovative practices, creative ideas and teaching strategies in the field of Science and Mathematics education. It inter alia covers a wide variety of materials relating to recent developments in the field of Science and Mathematics, content enrichment and teaching-learning of Science and Mathematics. A regular feature of the journal is 'Science News'. An Editorial Advisory Board, comprising of some eminent scientists, teachers and editors as its members, provide guidelines for overall improvement of the journal. The Board meets once in a year to review the progress of the journal besides recommending further improvement of the journal. Four issues of the journal were brought out during 1997-98.

### **Out-of-School Activities**

In order to popularise Science among common masses in general and school children in particular by organising out-of-school activities in Science, the schools are advised to encourage students to participate in out-of-school activities in Science by designing models and exhibits, drawing charts, making flow charts and undertaking investigatory projects and preparing reports on them. Two very important activities under this programme

have been the organisation of the National Science Exhibition for Children and the State Level Science Exhibitions for Children.

### **Jawaharlal Nehru National Science Exhibition for Children**

The 24th Jawaharlal Nehru National Science Exhibition for Children (JNNSEC-97) was organised by the NCERT in collaboration with the Department of Education, Government of Haryana, at Gurgaon from 18 to 25 January 1998. The main theme of the Exhibition was 'Science and Technology for Quality of Life'. On this occasion, a write-up titled, *Total Solar Eclipse* written by Prof. A.N. Maheshwari, Joint Director, NCERT, was released. A booklet titled *Structure and Working of Science Models* was also brought out. 132 scientific models developed by the school children from 28 States and UTs, the Jawahar Navodaya Vidyalayas and the schools run by the Kendriya Vidyalaya Sangathan and the Atomic Energy Education Society were on display at the exhibition. Nearly one and half lakh visitors, including school children, visited the exhibition. The exhibition was given a wide publicity by a large number of newspapers, both national and local dailies. The features of the exhibition were widely covered by the Doordarshan and the All India Radio.

### **State Level Science Exhibitions for Children**

The State Level Science Exhibitions for Children were organised in different States/UTs round the year. The central theme for this year's exhibition was 'Science and Technology in the Information Age'. The NCERT provided grants-in-aid amounting to Rs 17.31 lakhs to the States/UTs for organising the State level exhibitions. The schools of the Kendriya Vidyalaya Sangathan, the Navodaya Vidyalaya Samiti and the Atomic Energy Education Society also organised

exhibitions around this theme which was divided into four sub-themes. The State Level Science Exhibition for Children is a culmination of the district, zonal and regional level science exhibitions for children. The NCERT, apart from providing the detailed write-ups on the main theme and the sub-themes, provided guidelines to States/UTs for organising the State level Science Exhibitions for Children.

### **Academic Collaboration with various Academic Institutions**

The NCERT collaborated with other agencies such as the Central Board of Secondary Education, the National Open School, the State Councils of Education, the Research and Training, several District Institutes of Education and Training, and the State Education Departments and extended academic assistance in implementation of their academic programmes.

### **Reports and Other Materials Brought Out during 1997-98**

1. A New Approach to Practical Physics: Part I — Framework — January 1998
2. *School Science*, Quarterly Journal, 4 issues published in 1997-1998; Volume XXXV (2) June, (3) September, 1997, (4) December, 1997 and Volume XXXVI (No.1) March, 1998
3. a) 'Teaching Process Based Curriculum in Mathematics at Primary Stage'—Demonstration Modules, UNICEF Project Report, March, 1998  
b) Using Polya to enhance Problem Solving Abilities: Proceedings of heuristic methods in teaching of Mathematics, December, 1997
4. Experiments on Formal Level Topics in Chemistry for Senior Secondary Stage (cyclostyled report, 1997)
5. Module on 'Model Nurturance Programme in Physics for Talented Students at Senior Secondary Stage': A Report, 1997



6. Jawaharlal Nehru National Science Exhibition for Children 1998—two publications :  
List of Exhibits (ii) Structure and Working of Science Models
7. Learning School Physics Through Analogical Approach : School Science (CERT), Volume XXXV, No. 2, June 1997; pp 29 - 38
8. Formality and Morality in Acid-base and Redox Reactions: School Science, Volume XXXV, No.3, September 1997; 45-48
9. Training of Resource Persons/Teachers in Mathematics at Senior Secondary Stage: A Training Programme Report, March 1998.
10. Renewal of Science and Mathematics Curriculum at Upper Primary and Secondary Stage: A Report, 1997-1998.
11. Heavy Metal Pollution—What is it?: School Science, Volume XXXV, June 1997 No. 2, 10-16
12. Environmental Pollution Due to Cadmium, Lead and Arsenic: School Science, Volume XXXV, September, 1997, No. 3, 1-11
13. How Can Heavy Metal Pollution be Removed?: School Science, Volume XXXV, December, 1997. No. 4, 9-14
14. Activity Oriented 3-D Models and Improvised Low Cost Experiments at Senior Secondary Stage: A Report, 1997.
15. Dissection of Animals in Practical Classes at Senior Secondary Stage: A Report, 1997.





10

## **Education in Social Sciences and Humanities**

Studies on the 'position of different subjects in school curriculum in different parts of the country' are being given high priority. Subject-wise status studies in Social Science subjects and Commerce have been completed and their reports are under preparation. A survey/research project to study the status of languages in the school curriculum in India with focus on the language curricula and syllabi, textbooks and evaluation in an interrelated manner has been undertaken.



IN Social Sciences and Humanities, the NCERT is focussing its programmes and activities towards research and development of curriculum and instructional materials, training/orientation of teachers and teacher educators and consultancy/academic support to the educational authorities of States/UTs in development and evaluation of curricula and instructional material and studies for the different stages of school education.

### Development of Curricula and Instructional Material

Preparation on new/revised versions of some of the textbooks was undertaken on the basis of their evaluation and feedback received from teachers and students. The textbooks prepared include : Bal Bharati for Classes III and IV, Kishore Bharati and supplementary Readers for Class VIII, the Civics textbook for Classes IX-X, Hindi version of Part II of the Contemporary World History for Class XII, and Geography textbook for Class XII. Work on development of the Urdu Quwaid and the History of Urdu Literature continued. Instructional materials in the form of two monographs for teachers on various aspects of Art Education have also been prepared and are under print. A

Curriculum Framework in Consumer Education has been prepared. The Hindi version of *Human Rights: A Source Book* was brought out and work on preparation of its Urdu version is in progress. Besides, a study of the existing status position of human rights education, including a critique and the main directions for improvement in this area, was prepared.

### Status Studies

Studies on the 'position of different subjects in school curriculum in different parts of the country' are being given high priority. Subject-wise status studies in Social Science subjects and Commerce have been completed and their reports are under preparation. A survey/research project to study the status of languages in the school curriculum in India with focus on the language curricula and syllabi, textbooks and evaluation in an interrelated manner has been undertaken. A study on 'Evaluation of Linguistic Competencies in Hindi Language acquired by Students of Arunachal Pradesh at the end of Class V' was undertaken. The field work has been completed.

### Evaluation of Textbooks

The programme on Evaluation of Textbooks



from the standpoint of National Integration, to which the aspect of Human Rights was added subsequently, was continued. A sample of materials on values/moral education used in different parts of the country was evaluated. Under the project on 'Evaluation of NCERT's Textbooks in Social Sciences' undertaken during 1995-96, the feedback received from the four Demonstration Schools attached to the RIEs was processed.

### **National Prize Competition for Children's Literature**

The National Prize Competition for Children's Literature is organised once in two years with a view to recognising and rewarding as well as promoting excellence in children's literature in English and all the languages included in the Eighth Schedule of the Constitution of India. The XXIX National Prize Competition was organised on the theme 'The World of Children—Their Rights, Happiness and Dignity'. Twenty-eight books and manuscripts in 16 languages were selected for award. The writers and illustrators of the award winning entries were presented awards at a function held on 25 June 1997.

### **All India Essay Competition on Netaji Subhas Chandra Bose**

An all India essay competition for school students was organised as a part of the Netaji Subhas Chandra Bose Birth Centenary celebrations. Of 2681 entries, eight essays were selected for award. The writers of the essays were given awards.

### **Commonwealth Project on Human Rights Education**

A survey of Young People's Understanding of Human Rights was completed as a part of a four-country study sponsored by the Commonwealth Secretariat and coordinated by the Centre for Multicultural Education of the London University's Institute of Education. The Indian Country Report was prepared in 1997 on the basis

of the survey. The Report of the joint study was brought out by the Department for International Development, U.K.

### **Regional Level Inputs to Education in Social Sciences and Humanities**

The RIE, Ajmer developed training packages for : (i) Teaching of Social Sciences, (ii) teaching of English; and (iii) Practice Sets in Financial Accounting.

The RIE, Bhubaneswar developed for the Secondary stage : (i) Training Design in English Language Teaching for Key Persons, (ii) Training Package for Key Persons for teaching Hindi, (iii) Design of a Certificate Course in Geography for Teachers of Orissa, and (iv) Resource Materials on Health Education.

### **Reports and Other Materials Brought Out during 1997-98**

1. *Arun Bharati Part I* (Revised new edition)
2. *Abhyas Pustika Arun Bharati Part I* (Revised new edition)
3. *Arun Bharati Part II* (Revised new edition)
4. *Abhyas Pustika Arun Bharati Part II* (Revised new edition)
5. *Arun Bharati Part III* (Revised new edition)
6. *Abhyas Pustika Arun Bharati Part III* (Revised new edition)
7. *Bal Bharati Part I*
8. *Abhyas Pustika Bal Bharati Part I*
9. *Bal Bharati Part II* (Printed)
10. *Abhyas Pustika Bal Bharati Part II*
11. *Jawahar Navodaya Vidyalayon ki Navai aur Dasvin Kakshaon mein Samajik Vigyan ke Vishyon ke Liye Madhyam Bhasha ke Rup mein, Hindi Bhasha ke Prayog ki Sthiti : Shikshan Satra 1994-95 ke adhar par* (xeroxed)
12. *Naya Jeevan Part I Class VI*
13. *Revised Sankshipt Ramayan Class VI*
14. *Saras Bharati Part II Class VII*



15. Revised Sankshipt Mahabharat Class VII
16. Naya Jeevan Part II Class VII
17. France: A Supplementary Reader
18. India: Constitution and Government (Civics textbook for Classes IX-X)
19. Manav Adhikar — Srot Granth (Hindi version of Human Rights: A Source Book)
20. Freedom Movement's Vision of Independent India—English, Hindi and Urdu versions (Prof. Bipan Chandra's lecture delivered at the NCERT)
21. Subhas Chandra Bose—Ek Jeevani (Hindi version of Professor Gautam Chattopadhyaya's Subhas Chandra Bose — A Biography, brought out earlier)
22. Young People's Understanding of Human Rights: Country Report India (mimeographed)
23. Our Economy: An Introduction (A Textbook for Classes IX-X)
24. Hamari Arthavyavastha: Ek Parichaya (Classes IX-X).



**NCERT books being released in a function at the World Book Fair, New Delhi**

## Examination Reforms

The programmes in this area are specially directed towards designing, developing and standardising scientific processes, tools and techniques for assessment of cognitive, affective and conative aspects of pupils' growth : promoting and conducting research in educational testing and evaluation and measurement and training of key resource personnel; providing advisory services and coordination and clearing house functions in the area of examination reforms.



**T**HE NCERT is engaged in several activities related to measurement and evaluation in the area of examination reforms. The programmes in this area are specially directed towards designing, developing and standardising scientific processes, tools and techniques for assessment of cognitive, affective and conative aspects of pupils' growth : promoting and conducting research in educational testing and evaluation and measurement and training of key resource personnel; providing advisory services and coordination and clearing house functions in the area of examination reforms.

### **Development**

#### ***Pools of Questions in Environmental Studies (Science and Social Sciences) for Class III***

In order to strengthen and improve the evaluation process and to overcome the specific difficulties of teachers in framing good quality questions, the NCERT developed, refined and finalised pools of questions in Environmental Studies (Science) and Environmental Studies (Social Sciences) for Class III.

### ***Reading Comprehension Exercises for Classes IV and V in English***

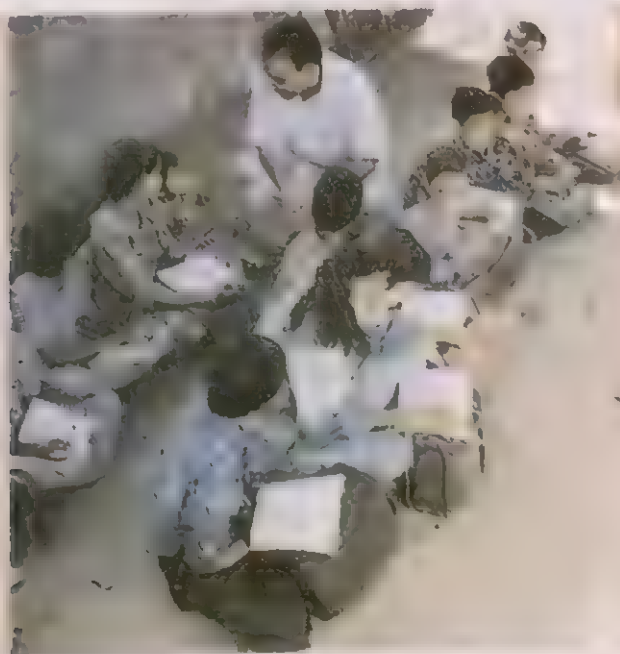
In order to improve the ability of reading comprehension, 65 passages of different varieties as exercises for reading comprehension were developed for teaching English in Classes IV and V in schools. These exercises were vetted in the workshop situation to make them print-worthy. Two volumes of a book titled 'Let Us Read and Understand', containing 25 exercises each, have been developed.

### **Training**

#### ***Training of Key Personnel in Educational Evaluation***

The Paper Setters of the National Open School, New Delhi were trained in educational evaluation in : (i) Science and Mathematics subjects and (ii) Social Sciences and Commerce subjects at the Secondary and Senior Secondary stages. About 50 participants participated in each programme.

An orientation programme in item writing and paper setting was organised for the resource persons and perspective paper



setters of the Manipur Board of Secondary Education.

## **Evaluation**

### **Analysis of Question Papers**

Consultancy services were provided to the Haryana Board of Secondary Education in analysing the question papers of the Board for the year 1996-97 at secondary stage.

### **Regional Level Inputs to Examination Reforms**

The RIE, Ajmer developed : (i) diagnostic tests on some selected units of Physics at the Senior Secondary level; and (ii) a training package for DIETs faculty on Continuous and Comprehensive Evaluation.

The RIE, Bhopal analysed common errors of Social Sciences question papers and answer scripts of students of the Madhya Pradesh Board of Secondary Education. Diagnostic tests were developed in some of the units of Commerce at +2 level. Two training programmes in paper

setting techniques for +2 stage teachers of Maharashtra in Science and Social Sciences (Geography) were also organised.

The RIE, Bhubaneswar is developing Standardised Language Competency Tests in Hindi and Oriya. Diagnostic Tests in Language and Mathematics for primary classes under DPEP have been developed and reviewed.

The NERIE, Shillong conducted a 5-day workshop-cum-orientation programme for teacher educators/school teachers and other officials of Meghalaya in Continuous Comprehensive Evaluation.

### **Reports and Other Materials Brought Out during 1997-98**

1. Examination Reform Bulletin (typed)
2. *Prashn Kosh-Paryavaran Adhyayan* (Samajik Adhyayan) Class III (typed)
3. Let Us Read and Understand for Class IV (typed manuscript ready for printing)
4. Let Us Read and Understand for Class V (typed manuscript ready for printing).





## Educational Psychology

A study of Adolescent's Perceptions of Social Norms is an attempt to examine the nature and extent of discrepancies between parental expectations of adolescents' behaviour and perceptions of adolescents regarding parental expectations. A questionnaire was administered to 40 adolescent boys and interviews were conducted with their parents. The study will help identifying the areas of conflict in adolescents and developing guidelines for parents. The report of the study is being finalised.

**Q**UALITATIVE improvement of education, particularly at elementary, secondary and senior secondary levels, through the application of the disciplines of Educational Psychology and of Counselling and Guidance, is one of the major concerns of the NCERT. The outcomes of the programmes in this area have implications not only for the educational development of school students but also for their all-round development including their social, emotional and career development at elementary and secondary stages. Some of the programmes are primarily geared towards empowering teachers and teacher educators and thus improving the quality of teacher preparation. Highlights of the programmes conducted in this area during 1997-98 are given below.

### Research

#### ***A Critical Study of Educational Psychology Curriculum of Elementary Teacher Education in India***

The objectives of the study include: (i) to critically analyse the adequacy of the contents on different criteria; (ii) to find out the methodology adopted in selecting and organising the course contents; and (iii) to

explore the perceptions of teacher educators teaching Educational Psychology. Analysis of 31 courses has been done and report of the first part is being written. Analyses related to the methodology of the development of such courses and teacher educators' perceptions across the country are being carried out. The overall report integrating all the three aspects of the study will contain guidelines for curriculum developers. The report of the study will be sent to the NCTE and the SCERTs.

#### ***A Study of Adolescents' Perceptions of Social Norms***

The study is an attempt to examine the nature and extent of discrepancies between parental expectations of adolescent behaviour and perceptions of adolescents regarding parental expectations. A questionnaire was administered to adolescent boys and interviews were conducted with their parents. The study will help in identifying the areas of conflict between adolescents and developing guidelines for parents. The report of the study is being finalised.

#### ***Schooling in Mirambika: A Case Study***

The school 'Mirambika' was studied in





context of its philosophy and socio-cultural milieu, in relation to its organisation, culture and the teaching-learning processes. In the first phase, an attempt was made to examine various school processes in relation to the two goals, i.e. transcendental and operative. The second phase is a follow-up of those students who after completion of their studies in Mirambika joined the Mother's International School. Perceptions of the students, teachers and parents with regard to adjustment, coping style, and life satisfaction were obtained; as a result of which a view of the Mirambika child emerges. The data has been analysed and the report of the study is ready for establishing congruence validity with the school.

#### ***Guidance Research in India: An In-depth Study***

The project aims at conducting a macro and micro level analysis of Indian researches in guidance and counselling. Data on all such studies available (about 300) have been collected and tabulated on a number of variables. Content analysis is being done. The findings will throw light on the status of guidance research in India and will provide useful guidelines for guidance practice.

#### ***A Study of the Predictive Potential of the Selection Procedure for Performance in the Counsellor Training Programme and On-the-Job Performance***

The study was aimed at validating the selection procedure used for selection of candidates for admission to the Post-Graduate Diploma Course in Guidance and Counselling conducted by the NCERT. Various aspects of the selection procedure consisting of selection test, interview and self expression were validated against the performance during the training programme and performance on-the-job. The Report of the project is being finalised. A paper based on the project titled 'How Valid are the Selection Criteria Used in

Counsellor Training Programme' has been prepared.

#### ***Analysis of Science Textbooks of the Secondary Stage with reference to the Nature of Science, Attitudes and Values towards Science and its Relevance for Daily Life***

The specific objective of this study was to assess the extent to which the contents of science textbooks developed by the NCERT for Classes IX and X include the themes relating to the nature and processes of science, its methodology and attitudes and values underlying science. The project aimed at preparing guidelines for writing better science textbooks. Analysis of the present science textbooks of the NCERT at secondary school stage has been done. Inter-rater reliability has been established by using two raters for analysing the textbooks. The report of the study is under preparation.

#### ***Counsellor in the Making: Status and Development***

The study aims at following up the counsellors trained so far under the Diploma Course in Guidance and Counselling being run by the NCERT in order to assess effectiveness of the training. The study would provide information on the employment status and job effectiveness of the trained counsellors having implications for suggesting improvements in the programme. Data has been collected from counsellors as well as from principals/supervisors, teachers, parents and students (using six questionnaires developed for the purpose) from forty-five schools and some counsellors working in non-school settings. Scoring, tabulation and analysis of data and report writing work is in progress.

#### ***Research Trends and Indigenisation of Educational Psychology in India: Analysis of Journal Articles and Reports***

The study aimed at examining research

trends and development of indigenisation in the field of educational psychology by analysing journal articles and research reports submitted to national agencies. After surveying the *Indian Psychological Abstracts* since 1980, a total of 640 journal articles were collected and analysed. Analysis of 94 research reports has also been completed. The methodology of quantitative and qualitative analysis is being followed in the present study. Based on the analysis of journal articles, a paper titled 'Educational Psychology in India: The Present Status and Future Concerns' is under consideration for publication in *World Psychology*. The report of the study is being finalised.

## **Development**

### ***Development of an Exemplar Curriculum in Educational Psychology for Elementary Teacher Education***

An initiative taken by the NCERT to improve elementary teacher preparation is to develop an exemplar curriculum in educational psychology. The proposed curriculum is proposed to be based on the gaps and deficiencies of the existing courses, in-depth analysis of field based feedback from teachers and teacher educators, experts' suggestions, review of courses/materials offered elsewhere and guidelines provided in the literature. Some work related to the documentation and review of support materials, seeking experts' opinions and comments to delineate major areas of concern for the curriculum, correspondence with concerned institutions/organisations to explore the kinds of courses followed in other countries, survey of in-service teachers' perceptions about their roles and expectations in terms of knowledge and skills required by them vis-a-vis gaps in their teacher training was carried out. This will be followed by preparation of the basic curriculum framework for comments and feedback from experts and practitioners.

### ***Teacher Questioning in Classroom: Development of Resource Material***

The project aims at exploring the role of questioning as a teaching device and developing resource material for teachers. In order to know the state-of-the-art, Phase I of the study carried out review of researches published in scientific journals in India and abroad to identify indigenous trends and existing gaps. Phase II of the project is an exploratory study on small sample of classrooms to know the existing position of questioning in terms of the cognitive demands on students. The teacher educators' understanding of questioning was also examined by administering a questionnaire to 53 teacher educators of DIETs from different States. Analysis of data collected under Phase I and Phase II of the project is in progress.

### ***Counselling Case Management : Development of a Practical Guide***

The project aims at developing a book of counselling cases successfully handled by the trainees of the Diploma Course on Guidance and Counselling during the last five years. It envisages providing guidelines to guidance professionals to show the usefulness of some counselling theories, methods and techniques to cope with the problems of Indian school students. Cases have been identified for inclusion in the case-book after thorough review and screening by guidance experts from a pool of about 550 cases. The cases are being further edited, refined and rewritten to make them printworthy. Some theoretical chapters on the basic concepts, principles and skills of counselling are also being written.

### ***Building Personal and Career Consciousness in Girls***

The book planned to cover the psychosocial dimension of 'Empowerment of Women' stressed in the National Policy on Education (1986) has been published. The publication is helpful in generating



awareness among change agents regarding the need to facilitate personal and career orientation of girls to enable them to develop a healthy life perspective. Various strategies to implement the ideas have been suggested.

### ***Career Development in India: Theory, Research and Development***

The resource book consisting of 12 chapters is under publication. The chapters converge towards various aspects of career development theory such as the role of Indian socio-cultural and work situation, theoretical models, women's career concerns, and needed research in the area. The book serves instructional objectives in counsellor training programmes.

### ***Handbook of Personality Measurement in India***

The handbook consists of evaluative reviews of 85 personality tests published in India. The reviews highlight the strengths and weaknesses of these tests. This volume is one in the series being brought out in different areas of testing by the NCERT. The handbook is under publication and about to be released.

### ***Handbook of Value/Attitude/Interest Measurement in India***

This volume containing reviews of tests in the areas of values, attitudes and interests is under preparation. The reviews have been finalised. The pre-publication manuscript is being prepared.

### ***National Library of Educational and Psychological Tests (NLE&PT)***

The work on enrichment of the National Library of Educational and Psychological Test was undertaken. Thirty Indian and 2 foreign tests were added to the existing lot. Two workshops of experts to review the tests were conducted and 50 ability/apptitude tests available in the library were reviewed.

## **Training**

### ***Post-Graduate Diploma in Guidance and Counselling—1997-98***

Thirty trainees from Andhra Pradesh, Assam, Maharashtra, Uttar Pradesh, West Bengal, Haryana, Arunachal Pradesh, Sikkim, Kerala, Bihar and Madhya Pradesh underwent training in the nine-month Diploma Course in Guidance and Counselling. The course content consists of theory and practice. Evaluation of practical work in schools is also done.

### ***Enrichment Course in Psychology for Teaching-Learning of DIETs Personnel***

A ten-day training course for 31 teachers, teaching educational psychology in DIETs from Hindi speaking States of Uttar Pradesh, Madhya Pradesh, Haryana and Rajasthan was organised. Apart from teaching-learning process, field-visits and audio/video presentations were also made.

### ***Orientation Programme in Guidance and Counselling for Untrained Key Personnel***

In order to strengthen guidance services in India and to develop some insight and awareness in key persons to provide leadership for monitoring the guidance services in schools and at State level, a five-day orientation programme in Guidance and Counselling was organised for 23 key persons deputed from Punjab, Karnataka, Kerala, Manipur, Andhra Pradesh, Maharashtra, Haryana and Union Territory of Chandigarh.

## **Extension**

### ***National Seminar on Educational Psychology in India: Emerging Issues and Concerns***

The seminar has been planned to provide a forum to the researchers to exchange their findings, share ideas, identify gaps and plan future strategies to provide a new and meaningful orientation to the field of

educational psychology. To decide on the theme, sub-themes, participants and modalities of holding the seminar, a meeting of the Working Group was held from 1-2 December 1997. A background paper was developed for the meeting. Probable participants, papers and themes have been identified by the Working Group members.

### **National Conference of State Level Key Guidance Personnel**

The conference was organised at NIMH, Secunderabad from 18 to 20 March 1998 with the objective of having update on the position of guidance services in the country at the level of State Departments of Education. Besides, there were presentation of papers on topics of current concerns and a great deal of sharing of indigenous guidance strategies. Eighteen key administrators and guidance functionaries at State level participated in the deliberations and presented seminar papers and status reports and chalked out future action plans.

### **Consultancy**

The NCERT provided consultancy and resource support in the area of Educational Psychology and Guidance and Counselling to various Government and Non-Governmental Agencies and Organisations namely the National Open School, the Kendriya Vidyalaya Sangathan, the University Grants Commission, the NIEPA, the Dayavati Modi Academy, Police Public School, the Salwan Public School, the Jamia Millia Islamia, the Urvi Vikram Charitable Trust, the Varky Educational Services, the Council for the Indian School Certificate Examination, the Institute of Applied Manpower Research, the Calicut

University, the SCERTs and the Gujarat Government.

### **Reports and Other Materials Brought Out during 1997-98**

1. Learning to Think and Thinkin to Learn: A Process Based Approach towards Curriculum Re-appraisal, (published in the *Journal of Indian Education*, August, 1997, Vol.23)
2. The Career Behaviour of Creative Adolescent Girls — Research Abstract (published in *Creativity Research Bulletin* of the Creativity Centre of Southern California, 1997, Vol.II)
3. Career Behaviour of Creative Girls
4. Efficient Questioning for Teacher Empowerment (published in the *Primary Teacher*, 1997, Vol.22, No. 4)
5. Occupational Information in Guidance
6. Career Development of Creative Girls
7. Guidance and Counselling — A Theoretical Perspective (Vol. I)
8. Guidance and Counselling—A Theoretical Perspective (Vol. II)
9. Understanding Psychology of Human Behaviour (Third reprint)
10. Psychology for Better Living (Fifth reprint)
11. *Manav Vyavhar Ka Manovigyan* (First reprint) (Hindi version)
12. *Behtar Jeevan Ke Liye Manovigyan* (Second reprint) (Hindi version)
13. Learning Problems of Primary School Children in Urban Slums of Delhi (under print).





## Teacher Education

The programmes and activities in this area are generally focused on development of capabilities in the states to respond effectively to the training needs of the states, including training under the District Primary Education Programme (DPEP) and Special Orientation Programme of Primary Teachers (SOPT); academic support to centrally sponsored schemes of teacher education like the District Institutes of Education and Training (DIETs), Colleges of Teacher Education (CTEs), Institutes of Advanced Studies in Education (IASEs), and State Councils of Educational Research and Training (SCERTs).

**T**eacher Education is a curricular input for improving school education. The programmes and activities in this area are generally focused on development of capabilities in the states to respond effectively to the training needs of the states, including training under the District Primary Education Programme (DPEP) and Special Orientation Programme of Primary Teachers (SOPT); academic support to centrally sponsored schemes of teacher education like the District Institutes of Education and Training (DIETs), Colleges of Teacher Education (CTEs), Institutes of Advanced Studies in Education (IASEs), and State Councils of Educational Research and Training (SCERTs). The Department of Teacher Education and Extension (DTEE) in the National Institute of Education (NIE) at New Delhi and the Regional Institutes of Education (RIEs) at Ajmer, Bhubaneswar, Bhopal, Mysore and Shillong are the major constituents of the NCERT engaged in improving the quality of teacher education.

Each RIE caters to the educational needs (pre-service and in-service education) of the States and UTs under its jurisdiction. The RIE, Ajmer looks after

teacher education and related educational requirements of the States of Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttar Pradesh and the UT of Chandigarh. The RIE, Bhopal has under its jurisdiction the States of Goa, Gujarat, Madhya Pradesh, Maharashtra and the UTs of Dadra and Nagar Haveli and Daman and Diu. The States of Arunachal Pradesh, Assam, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim, Tripura, Bihar, Orissa, West Bengal and the UT of Andaman and Nicobar Islands are covered by the RIE, Bhubaneswar. The States of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu and the UTs of Lakshadweep and Pondicherry are covered by the RIE, Mysore. In December 1995, a new Regional Institute of Education was set up at Shillong to cater to the in-service educational needs of north-eastern States of Assam, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland, Tripura and Sikkim which were earlier covered under the RIE, Bhubaneswar. Highlights of the programmes and activities undertaken in the area of teacher education during 1997-98 are given below:



**XXIX National Prize Competition for Children's literature**



## **Research Studies**

### ***A Study of Working Conditions of Primary School Teachers in Haryana and Madhya Pradesh***

To compare the working conditions of primary school teachers in rural and urban settings, the study was conducted on 20 primary schools situated in two districts of Haryana representing high and low level of literacy. Eighty-eight teachers of the rural areas and 92 teachers of urban areas participated in the study. The data were collected with the help of six tools namely 'School Information Schedule', 'Teachers Working Conditions Questionnaire', 'Teacher Professional Anxiety Scale', 'Interview Schedule for Teachers', 'Interview Schedule for DPEP', and 'Observation Schedule' and the draft report was prepared.

### ***Instructional Practices and Classroom Management in Large Size Classes at Primary Stage***

The classroom instructional practices followed by the teachers teaching large size classes, the prevalent practices of classroom management techniques for handling large size classes and the needs and problems of teachers handling large size classes, were studied through qualitative research. The data from 14 schools (45 classroom observations, 175 teachers; focus group discussion) have been collected.

### ***Case Studies of Selected Innovative Teachers***

Through nine case studies of the NCERT-awarded primary school teachers, an attempt has been made to identify their psycho-socio traits as well as their educational, professional and cultural background to highlight the genesis, planning and execution of their innovative work. It was found that these teachers were recipients of many other State/district/block level awards, hailed from diverse

cultural backgrounds and guided by their own impulses. They searched their own facilitators themselves. They had positive impact in facilitating teaching-learning process in the classroom showing 100 per cent result during the last three years. These teachers were also rendering a commendable service towards community welfare activities and towards national literacy mission in their own way. On the basis of the study three papers were prepared and contributed in the regional, national and international conferences.

### ***Appraisal of Teaching Practice in Pre-service Teacher Education Programme***

Various steps of teaching practices/internship programmes used in DIETs in developing teaching competencies were surveyed and evaluated to suggest more appropriate and effective practice teaching/internship programme for empowering teachers at the elementary level. Four DIETs having high HRD climate participated in the study. Qualitative Research Techniques, Questionnaires and Schedules were used to collect the data. On the basis of the research findings, two papers were contributed in the national and international conferences.

### ***Operationalisation of the Scheme of DIETs***

DIET Questionnaires and Teacher's Profile Schedule were sent to all DIETs. The filled-in questionnaires and Teacher Profile Schedules have been received from 25-30 per cent DIETs. The data are being processed.

### ***Teacher Educators in Perspective***

The project 'Teacher Educators in Perspective: Explorations in Their Social Origins, World View and Professional Productivity' is an in-depth study of teacher educators of the State of Rajasthan which was completed during 1997-98. A couple of research papers based on the findings

of the study were published in some leading national and international journals. The report of the project is being published by the Vikas Publishers under the title 'Educators: A Perspective'.

## **Development**

### **Code of Professional Ethics for Teachers**

A Code of Professional Ethics for Teachers was developed in collaboration with the Federation of Primary and Secondary School Teachers' Associations and a group of eminent educationists in a series of workshops. The code has a brief preamble indicating the goal of education in our country and the professional rights and privileges of teachers to enjoy quality life and respectable position in the society. The professional ideals are enlisted in the major parts, namely teachers' moral duties and responsibilities towards their students, behaviour with authorities for the betterment of the institution, their relationships with parents/guardians and the public keeping in view the dignity of the profession, their commitment to strengthen moral and intellectual life of the community/society, and the nation and their behaviour with colleagues and other professional organisations. The code has been circulated widely. The professional organisations of teachers have also been approached to take upon themselves the moral responsibility to safeguard all the clauses of the code by ensuring their observance by the teachers.

Training material in modular form to impart induction training to newly recruited SCERT/SIE faculty was developed and finalised.

## **Training**

### **Pre-Service Teacher Education Programme**

One of the major concerns of the NCERT is the development and operationalisation of innovative pre-service teacher education courses, viz., four-year integrated teacher

education course in science education and one-year M.Ed. course with specialisation in elementary education.

### **Four Year Integrated B.Sc., B.Ed./ B.Sc. Ed. Course**

The main emphasis of this course is on quality, i.e. producing good teachers well-versed in content, process and pedagogy and co-curricular activities.

### **One Year M.Ed. (Elementary Education) Course**

As part of the NCERT's efforts towards Universalisation of Elementary Education and meeting the needs of various institutions in the States, especially of the DIETs/SCERTs, an M.Ed. degree course, with specialisation in elementary education, was started in 1995-96. This is an integrated and innovative one-year course in teacher education that gives adequate emphasis on issues and concerns in primary education and research-based inputs. The pupil-teachers in the course, inter alia, conduct several research studies in different priority areas of elementary education.

During 1997-98, a total of 1357 students were on roll in various pre-service courses in the RIEs.

### **In-service Teacher Education Programmes**

#### *Academic Support to DIETs*

A self-instructional package for the evaluation of DIETs was developed and is under print. An in-service training programme for the Principals of DIETs from the States of Punjab, Delhi, Sikkim, Haryana and Jammu and Kashmir was organised. An induction level in-service training programme for the faculty of DIETs of the States of Punjab, Haryana, and Jammu and Kashmir was organised.

#### *Capacity Building of SCERTs*

An eight-day Induction Training



Programme was organised for SCERTs faculty. The training input facilitated the participants to understand their new roles in the SCERTs/SIEs to make them reflect on emerging trends and issues related to school education and teacher education; to equip them with the methodology of in-service education and action research; and to advise them about the recent innovations in elementary education and teacher education. The entire training programme centred around five main areas viz.: (i) methodology of in-service education; (ii) development of instructional materials; (iii) elementary education; (iv) teacher education; and (v) action research. These areas were further divided into 24 topics, viz. JEE, quality of elementary education, decentralised planning in elementary education, development and evaluation of instructional material package, planning, organisation, monitoring and evaluation of in-service education programmes, action research, innovations in elementary school education and teacher education, and code of professional ethics for teachers, etc. Participatory and interactive modalities were used to transact the training curriculum. Thirty-two persons from 19 SCERTs/SIEs from the States of Assam, Bihar, Goa, Gujarat, Himachal Pradesh, Haryana, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Nagaland, Punjab, Orissa, Sikkim, Uttar Pradesh, Tamil Nadu, Tripura and Chandigarh (UT) participated.

#### *Training Programme on Qualitative Research Methods for CTEs*

A four-day training programme on Qualitative Research Methods was organised at the NCERT's Regional In-service Training and Extension Centre (RITEC), Bangalore for the faculty of University, Departments of Education of Southern Region. The programme aimed at sensitisation of the participants about the need to make use of alternative research methods, like qualitative ones, and acquainting them with techniques

such as ethnography, case study, interviewing and phenomenological approaches. The participants were provided with reading material. Some specific researches were also planned by them.

#### *Promotion of Research in Elementary Education in IASEs*

A programme of Promotion of Research in Elementary Education in the Institutes of Advanced Study in Education (IASEs) was organised at RITEC, Bangalore. Twenty-seven participants of the rank of Deans, Heads and Professors from Andhra Pradesh, Maharashtra, Orissa, Kerala, Karnataka, Tamil Nadu, Rajasthan, Madhya Pradesh and Delhi attended the programme. It is for the first time that the attention of IASEs has been drawn to the crucial stage of Elementary Education. The participants worked in groups and identified the problems of research in elementary education. Among other things, steps for the promotion of research in elementary education were suggested.

#### *Special Orientation Programme for Primary Teachers (SOPT)*

The centrally sponsored 'Special Orientation Programme for Primary Teachers (SOPT)' was launched in the year 1993-94 on a massive scale to cover about 18 lakh teachers in the country at the rate of 4.5 lakh primary teachers each year during the last four years of the Eighth Five Year Plan, i.e. during 1993-97. The NCERT was entrusted with the responsibility for its planning, programming, organisation, conducting and monitoring on the one hand and for providing academic input on the other. The major focuses of the SOPT are: (i) to develop competencies among teachers as envisaged in the National Report on MLL; (ii) to develop competencies in the use of Operation Blackboard (OB) materials; and (iii) to equip teachers to adopt child-centred approach to learning. The cascade mode has been adopted to provide training to different levels of functionaries. The master trainers at the

national level provided training of five days' duration to Key Persons (KPs) of the State level nodal agencies. The master trainers are the subject experts and pedagogues of the NCERT and certain other apex institutions. The KPs provided training to the Resource Persons (RPs) and the RPs, in turn, provided training to the primary teachers. Initially preference was given to those teachers who have been appointed under the OB scheme. The State nodal agencies (SCERTs) have established training centres which are selected on the basis of the availability of physical facilities. The SOPT is in the last phase of its implementation. Since the commencement of the programme in 1993-94, about 10 lakh teachers have been trained.

### **Impact of SOPT Training on Teachers**

An impact study of SOPT training on classroom teachers was carried out to assess the quality of training imparted to the teachers and to see its impact on classroom processes of teacher behaviour in terms of objectives of SOPT training. Data, both quantitative as well as qualitative, on about 4000 teachers was collected from the four regions of the country comprising the States of Rajasthan, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Orissa, Bihar, Karnataka and Andhra Pradesh. After analysis of the data the State reports were finalised.

### **Effectiveness of Alternative Technology Options in the Training of Primary School Teachers**

After having organised series of teleconferencing programmes to train primary school teachers, it was decided to find out the relative effectiveness of different technology options which are being used in the teacher training programme. The three options are:

#### **Option 1**

Self-Learning Modules + Discussion at the

Learning End + Live Presentation and Demonstration + Live Question-Answer + Group Activities + Discussion at the Learning End + Live Question Answer.

#### **Option 2**

Self-Learning Modules + Discussion at the Learning End + Recorded Programme on Presentation and Demonstration + Question-Answer at the Learning End + Group Activities + Discussion at the Learning End + Question-Answer at the Learning End.

#### **Option 3**

Self-Learning Modules + Discussion at the Learning End + Recorded Programme on Presentation and Demonstration + Recorded Programme on Question-Answer + Group Activities + Discussion at the Learning End + Recorded Programme on Question-Answer.

The content inputs were 'Minimum Levels of Learning', 'Place Value', 'Addition', 'Subtraction', 'Multiplication', and 'Division'. The training was provided to about 800 teachers (20 centres) through the first mode, about 400 teachers (10 centres) through the second mode and about 400 teachers (10 centres) through the third mode. The data collected is being processed to assess the relative effectiveness of each on the above three modes.

### **Elementary Teacher Educators' Training through Teleconferencing**

A five-day teleconferencing programme was organised for 500 DIET faculty members from 25 learning centres of Madhya Pradesh to provide training in various roles and functions of DIETs, such as:

- (i) Universalisation of Elementary Education; Field related issues, Micro Planning and Classroom Strategies;
- (ii) In-service Teacher Training ; Assessment of Training Needs, Material Development, Planning and Organisation, Tips for using OHP and



audio materials, Evaluation of Training Programmes; and

(iii) Research and Development activities.

Twelve self-instructional modules along with their activity sheets and an evaluation tool for assessing the effectiveness of teleconferencing programme were developed. A three-day orientation programme for facilitators and observers was organised. Fifty facilitators of SCERTs and 25 DIET Principals or their representatives, as observers, participated. About 27 hours of transaction was carried out, which contained about nine hours of interaction, three hours of video presentation, and seven hours of individual and group activities. During interaction, about 300 telephone calls and 150 Fax were received through which the participants asked their questions and shared their experiences concerning the topics transacted. The programme was found to be useful and effective by the participants. Analysis of the diary maintained by the participants indicated that the participants gained much insight into their role, with respect to achieve UEE, in organising in-service teacher training programmes.

### **Extension**

#### ***Annual Conference of Directors of SCERTs/SIEs***

The Annual Conference of the Directors/Principals of SCERTs/SIEs was organised: (i) to exchange information with regard to significant experiences/innovations attempted by the SCERTs/SIEs; (ii) to deliberate on the changing roles of SCERTs with reference to the latest developments in Indian education; and (iii) to identify the training needs of the SCERTs faculty. The participants were specifically oriented with the role of SCERTs in the context of DPEP, 83rd Constitution Amendment Bill 1997 and its implications for elementary education, and 'Curriculum Framework for

Primary Years' developed by the NCERT. The conference suggested that the SCERTs should be strengthened and given autonomous status. The SCERTs should undertake a few action-oriented research studies, use distance education mode for imparting training, establish effective linkages with the NGOs, teacher education institutions, University Departments of Education and Directorate of Education to improve the quality of teacher education and have a separate cadre of teacher educators. Capacity building programmes need to be organised on a continuing basis for the faculty of SCERTs. Two conferences of Directors of SCERTs may be organised every year.

#### ***National Seminar on Common School System***

In order to work out a consensus with regard to the desirability or otherwise of the Common School System, the NCERT invited papers from general public on the theme. After screening 285 papers the authors of about 50 papers were invited to participate in a seminar. About 70 persons including educationists, educational administrators, teachers, teacher educators, scientists and journalists attended the seminar. It emerged from deliberations that Common School System of Education needs to be strengthened in the country as a whole. Strenuous efforts need to be made to improve the quality of schools under government sector. The efficiency of the teachers should be improved through providing them in-service training and making them more accountable towards their duties. It was stressed that good public schools need not be denounced and the Government schools should imbibe the work-culture and spirit of these schools.

#### ***Innovative Experiments and Practices in Teacher Education and School Education***

To promote innovations and experiments

in the field of school education and teacher education, efforts have been made to encourage teachers and teacher educators to try out innovative ideas and practices for qualitative improvement in school education. The NCERT designed a scheme under which a cash award of Rs 2000 and a certificate is given to teachers/teacher educators for each award winning entry. During 1997-98, fifty-four innovative papers in the area of Teacher Education were submitted by teacher educators from Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Tripura, Uttar Pradesh, Chandigarh and Delhi. The papers selected at the state-level were evaluated in a national meet of the panel of evaluations.

Forty-nine papers at Pre-primary and Elementary level and 28 papers at the Secondary and Senior Secondary level were selected for award. The authors of the papers were awarded in the National Seminar.

The NCERT provided consultancy services to the Government of Mizoram in formulation of Educational Policy and Plan of Action suited to the specific needs of the State. At the instance of the MHRD, a blueprint of Teacher Centres (TCs) and Block Resource Centres (BRCs) was developed for their effective functioning. Assistance was provided to the 'Task Force on INSET for Secondary School Teachers' appointed by MHRD in developing a Plan of Action to institutionalise and professionalise secondary school teachers' in-service education.

#### **Report and Other Materials Brought Out During 1997-98**

1. Code of Professional Ethics for Teachers
2. State Council of Educational Research and Training : Need for Strengthening (xeroxed).
3. Innovative Experiments and Practices

in Pre-Primary and Elementary School Education, 1995-96 (mimeographed)

4. Innovative Experiments and Practices in Secondary School Education 1995-96 (Main Report), (mimeographed)
5. Innovative Experiments and Practices in Secondary School Education, 1995-96 (mimeographed)
6. Instructional Practices and Classroom Management in Large Size Classes at Primary Stage : A Study (mimeographed)
7. Curriculum and Syllabi for M.Ed. (Elementary Education) Programme (under print)
8. A Study of Working Conditions of Primary School Teachers in Haryana (typed)
9. *Matry Bhasha Hindi Shikshan* (under print)
10. Training Package for Faculty of DIETs (under print)
11. Induction Level In-service Training Programme for the Principals of DIETs (xeroxed)
12. Monitoring and Evaluation of In-service Training Programme for Primary Teachers: A study prepared under DPEP (xeroxed)
13. Progress Report of SOPT (xeroxed)
14. Paper on the Common School (mimeographed)
15. Teachers' Service Conditions and Redressal of their Grievances in Private Schools.

#### **Regional Level Inputs to Teacher Education**

The Regional Institutes of Education (RIEs) at Ajmer, Bhopal, Bhubaneswar, Mysore and Shillong provided academic support to clientele States/UTs in their respective regions and acted as Regional Resource Institutions for school education and



teacher education. The RIEs extended required assistance in implementing the policies of the States/UTs and assisted in implementation, monitoring and evaluation of Centrally Sponsored Schemes in the States under their jurisdiction. The RIEs at Ajmer, Bhopal, Bhubaneswar and Mysore conducted Regional Research Seminars on 'Teacher Empowerment and School Effectiveness at the Primary Stage' as an input to the International Seminar on the same theme held at New Delhi in June 1997.

The RIE, Ajmer organised training programmes for : (i) Teachers/KRPs of DIETs; (ii) +2 Vocational Teachers in Accountancy; (iii) PGTs of KVS in Mathematics and Physics; (iv) Teachers in Office Management and Secretarial Practices at +2 level; (v) Resource Persons of Content Enrichment Package for teaching Physics at +2 level; and (vi) KRPs/Teachers and DIETs faculty in teaching of Urdu at elementary level. An orientation programme for Headmasters/Teachers of cooperating schools was also organised. Strategies for monitoring and evaluation of the programmes of DIETs and training packages in Mathematics, Science, Social Sciences and English and Comprehensive and Continuous Evaluation (CCE) were developed and tried out.

The RIE, Bhopal organised training of DIETs faculty in : (i) CMDE and PSTE; (ii) designing action research projects; (iii) teaching Science and Mathematics at the Upper Primary Level; and (iv) background in elementary education. In-service training was also provided to:

- (i) Mathematics teachers in concepts related to Computer Education;
- (ii) Demonstration Schools teachers in Computer application;
- (iii) PGTs in concepts and skills of teaching Physics, Biology and Mathematics;
- (iv) PGTs in Physics and Mathematics of

#### Railway Schools;

- (v) Primary and Secondary Teachers of Ordinance Factories of the Western Region; and
- (vi) Resource persons of primary schools of KVs.

The RIE, Bhopal also developed tools to study the effectiveness of Cluster Coordinators.

The RIE, Bhubaneswar organised : (i) a conference of Principals and Teachers of Cooperating Schools on Internship in Teaching; (ii) an Orientation Programme for Teacher Educators on Methodology of Teaching Mathematics at +2 level; and (iii) a Training Programme for PGTs in Chemistry of the Railway Board Schools.

The RIE, Bhubaneswar worked on development and try out of training packages on : (i) Learning Difficulty for DIETs Faculty; (ii) Teaching Hindi at Secondary Level for Key Persons; (iii) Transaction of Concept Centred Experiments in Chemistry at Senior Secondary level; (iv) MLL based/competency-based teaching; and (v) Guidance and Counselling for Principals of Higher Secondary Vocational Schools. Programme on formulation of training strategies to ensure effective participation of local communities/bodies for better functioning of primary schools and try-out of strategies for effective handling of large class size were also undertaken.

The RIE, Mysore organised: (i) Training of DIETs Faculty in Physical Education; (ii) Training on Awareness and Utilisation of Computers in Educational Data Processing; (iii) Training in Testing and Evaluation of English as a Second Language for Key Persons of Andhra Pradesh; (iv) Orientation of Secondary School Teachers in Physical Science based on the New Textbook; (v) Orientation of Key Persons from Kerala to enable them to train High School Teachers in methods of teaching English; and (vi) Orientation of

Teacher Educators of Kerala in Data Processing and Statistics using Computers. Training Packages on Motivation of Primary School Teachers of Andhra Pradesh have also been developed.

The NERIE, Shillong organised two workshop-cum-orientation programmes, one for Key Persons working in ADC area of Tripura and another for teacher educators/school teachers and other officials of Meghalaya on Continuous and

Comprehensive Evaluation (CCE). A seminar on 'Perspectives of School Education in the North-Eastern States' was also conducted. The NERIE provided academic support and consultancy to the states in development of curriculum for primary classes, selection of academic staff, selection of teachers for national awards and guided the educational activities of the states and the IGNOU Centre located at Shillong.

#### Course-Wise Enrolment in RIEs during 1997-98

| S.No. | Course                    | Ajmer | Bhopal | Bhubaneswar | Mysore |
|-------|---------------------------|-------|--------|-------------|--------|
| 1.    | <b>B.Sc. B.Ed.</b>        |       |        |             |        |
|       | I Year                    | 81    | 84     | 99          | 80     |
|       | II Year                   | 66    | 77     | 87          | 53     |
|       | III Year                  | 68    | 69     | 67          | 64     |
|       | IV Year                   | 55    | 52     | 77          | 38     |
| 2.    | <b>B.A. B.Ed.</b>         |       |        |             |        |
|       | IV Year                   | —     | 50     | 63          | 24     |
| 3.    | <b>M.Ed. (Elementary)</b> | 20    | 21     | 32          | 30     |
|       | <b>Total</b>              | 290   | 353    | 425         | 289    |

#### Examination Results of RIEs during 1997-98

| S.No. | Course                       | Pass Percentage |        |             |        |
|-------|------------------------------|-----------------|--------|-------------|--------|
|       |                              | Ajmer           | Bhopal | Bhubaneswar | Mysore |
| 1.    | <b>B.Sc. B.Ed./ B.Sc.Ed.</b> |                 |        |             | 90     |
|       | I Year                       | 86.4            | 97.5   | 78.9        |        |
|       | II Year                      | 100             | 100    | 100         |        |
|       | III Year                     | 100             | 100    | 94.8        |        |
|       | IV Year                      | 98.5            | 100    | 91.4        |        |
| 2.    | <b>B.A. B.Ed. /B.A.Ed.</b>   |                 |        |             |        |
|       | III Year                     | —               | 100    | 100         |        |
|       | IV Year                      |                 | 100    | 100         |        |
| 3.    | <b>M.Ed.</b>                 | 100             | 100    | 85.0        | 100    |



### Demonstration Multipurpose Schools

Each of the Regional Institute of Education (RIE) at Ajmer, Bhopal, Bhubaneswar and Mysore has a Demonstration School attached to it. These Demonstration Schools are integral parts of the RIEs and act as laboratories for trying-out innovative practices in school education and teacher education. The teacher trainees enrolled in the various pre-service teacher education courses offered by the RIEs also undergo practical training in these schools.

The Demonstrations Schools, affiliated to the Central Board of Secondary Education (CBSE), New Delhi from Classes I to XII impart education through English medium. These schools also offer guidance and counselling facilities and have the unique distinction of having vocational courses at the plus-two level, in Structure and Fabrication, Basic Electronics Technology and Office Management and Secretarial Practice.

**Class-wise Enrolment in the Demonstration Schools attached to RIEs during 1997-98**

| Class | Ajmer | Bhopal | Bhubaneswar | Mysore |
|-------|-------|--------|-------------|--------|
| I     | 27    | 68     | 65          | 71     |
| II    | 29    | 69     | 80          | 70     |
| III   | 32    | 67     | 72          | 71     |
| IV    | 33    | 79     | 76          | 71     |
| V     | 28    | 72     | 107         | 71     |
| VI    | 47    | 73     | 120         | 69     |
| VII   | 38    | 70     | 133         | 75     |
| VIII  | 57    | 68     | 128         | 67     |
| IX    | 45    | 69     | 127         | 69     |
| X     | 60    | 65     | 130         | 70     |
| XI    | 26    | 79     | 97          | 46     |
| XII   | 43    | 61     | 77          | 40     |
| Total | 465   | 840    | 1212        | 790    |

**Examination Results of the Demonstration Schools during 1997-98**

| Class  | Pass Percentage |        |             |        |
|--|-----------------|--------|-------------|--------|
|  | Ajmer           | Bhopal | Bhubaneswar | Mysore |
| X  | 72              | 96     | 98          | 86     |
| XII (Science)                                    | 96              | 87     | 100         | 94     |
| XII (Arts)                                       | 90              | 100    | 83          | —      |
| XII (Commerce)                                   | 97              | 94     | 91          | —      |
| XII (Vocational)                                 | 100             | 100    | 71          | —      |
| XII (Humanities)                                 | —               | —      | —           | 100    |
| XII (Office Management and Secretarial Practice) | —               | —      | —           | 100    |

## Reports and Other Materials Brought Out during 1997-98

### RIE Ajmer

1. Training of Chemistry teachers at +2 level on Chemical Demonstration (xeroxed)
2. Training-cum-Workshop for +2 vocational teachers of Accountancy (xeroxed)
3. Practice Sets in Financial Accounting (xeroxed)
4. Training Package in Mathematics at Upper Primary Level (xeroxed)
5. Manual for Science Kit for Upper Primary Teachers (xeroxed)
6. Training of Teachers in Office Management/Secretarial Practice (xeroxed)
7. Training Package on Teaching Social Science at Secondary Level (xeroxed)
8. Workshop on Methodology of Organizing Quiz Contest (xeroxed)
9. Development of Diagnostic Test on some Selected Topics of Physics (xeroxed)
10. Report of the 'Seminar on Teachers' Role in strengthening and making 'School System Effective' (xeroxed)
11. Impact of SOPT Training on Classroom Teachers in Rajasthan (xeroxed)
12. Impact of SOPT Training on Classroom Teachers in Himachal Pradesh (xeroxed)
13. Multilevel Analysis of Base Line Data from Uttar Pradesh (xeroxed)
14. Modalities of Continuous and Comprehensive Evaluation for Elementary Schools (xeroxed)
15. Research report on 'A Study of Relationship between Socio-Economic and Cultural Variables and Fertility Behaviour' (xeroxed)

### RIE, Bhopal

1. Development of Models for Pre-Primary Education (xeroxed)

2. Development of Tools to Study the Effectiveness of Cluster Co-ordination in Terms of Their Specific Roles Academic, Supervisory and Leadership (xeroxed)
3. Development of Remedial Material (+2 Level) in Chemistry on the basis of Pupil Error Analysis (xeroxed)
4. Development of Remedial Material (+2 Level) in Biology on the Basis of Pupil Error Analysis (xeroxed)
5. Development of Diagnostic Tests on some of the Units of Commerce at +2 Level (xeroxed)
6. Development of Remedial Material in Science at Secondary Level on the basis of Pupil Error Analysis (xeroxed)
7. Training Programme for +2 Teachers of Science in Paper Setting Techniques (xeroxed)
8. Training of Key Resource Persons on Effective Teaching of Science at Upper Primary Level through Environmental and Activity Based Approach (xeroxed)
9. Training of DIET Personnel in Teaching of English as Second Language at Upper Primary Level in Key Concepts and Skills (xeroxed)
10. Training Programme for Teachers in Social Sciences (Geography) in Paper Setting Techniques (xeroxed)
11. Orientation of Supervisory Staff of Tribal Development, Department in Educational Supervision and Guidance (xeroxed)
12. Training of KRPs in Geography Practical Skills and their Evaluation at +2 Level (xeroxed)
13. Development of Project and Activity Based Teaching- Learning Instructional Material in Commerce at +2 Level (xeroxed)

### RIE, Bhubaneswar

1. Impact Study of SOPT Training on Classroom Processes in Orissa State (typed)



- 2 A.B.C. of Guidance
- 3 M.Ed. (Elementary Education) Degree Semester System Syllabus Regulation (typed)
- 4 Four-Year B.Sc. B.Ed. Degree Course Semester System Syllabus Regulation (typed)
- 5 Development of Diagnostic Test in Mathematics on Multiplication for Primary Classes (typed)
- 6 Content Enrichment Programme for PGTs in Chemistry Working in Railway Board Schools (xeroxed)
- 7 Content Enrichment Programme for PGTs in Biology Working in Railway Board Schools (xeroxed)
- 8 A Source Book of Remedial Materials for Teaching Physics at Higher Secondary Level (xeroxed)
- 9 Training Package for Teaching Mathematics at Secondary Level (typed)
- 10 Environmental Orientation to School Education (MHRD sponsored Project): Training Materials for DIETs of Eastern Region (xeroxed)
- 11 Instructional Materials in Environmental Biology for Secondary and Higher Secondary Schools of Eastern India (typed)
- 12 Development and Try-out of Training Package for Key Persons for Teaching of Hindi at Secondary Level (xeroxed)
- 13 Ecological Status Study and Survey of Benthic Macro-Meio and Inchtuyo Fauna of Bittar Kanika Mangrove Estuaries of Mahanadi River System (xeroxed)
- 14 Critical Analysis of NCERT Textbooks in Chemistry at +2 level: A Report (DTP form)

#### **RIE, Mysore**

1. Regional Seminar on Research in 'Teacher Empowerment and School Effectiveness at Primary Stage' : Abstracts of Papers (xeroxed)
2. Seminar Report : Teacher

Empowerment and Teacher Effectiveness (xeroxed)

3. In-Service Training Course in Chemistry for PGTs of Kendriya Vidyalaya Sanghatan — Report (xeroxed)
4. In-service Training Course in Mathematics for PGTs of Kendriya Vidyalaya Sanghatan — Report (xeroxed)
5. Training of DIET-faculty in Physical Education with Special Reference to Promotion of Games at Primary Level of Tamil Nadu, Karnataka and Pondicherry (xeroxed)
6. Experimental Study on the Identification of Hardspots in EVS-II (Science) of Class III in Karnataka State (xeroxed)
7. Training Programme on Computer Utilisation for DIET-faculty of Karnataka (xeroxed)
8. Study of Physical Health, Learning, Emotional and Behavioural Problems among Primary School Children in Mandya District – DPEP
9. Development of Audio Programmes in Kannada on Core Curricular Areas at Primary Level (xeroxed)
10. Enrichment Materials in Mathematics for Class IX of Karnataka (xeroxed)
11. Remedial Instruction Material in Arithmetic for Slow Learners of Elementary Schools : Teachers' Guide (xeroxed)

#### **NERIE, Shillong**

1. Orientation of Key Persons Working in ADC Area of Tripura : A Report (mimeographed)
2. Workshop-cum-Orientation for Teacher Educators/School Teachers and Other Officials of Meghalaya on Continuous and Comprehensive Education: A Report (mimeographed)
3. Perspectives of School Education in the North Eastern States: A Report (mimeographed)

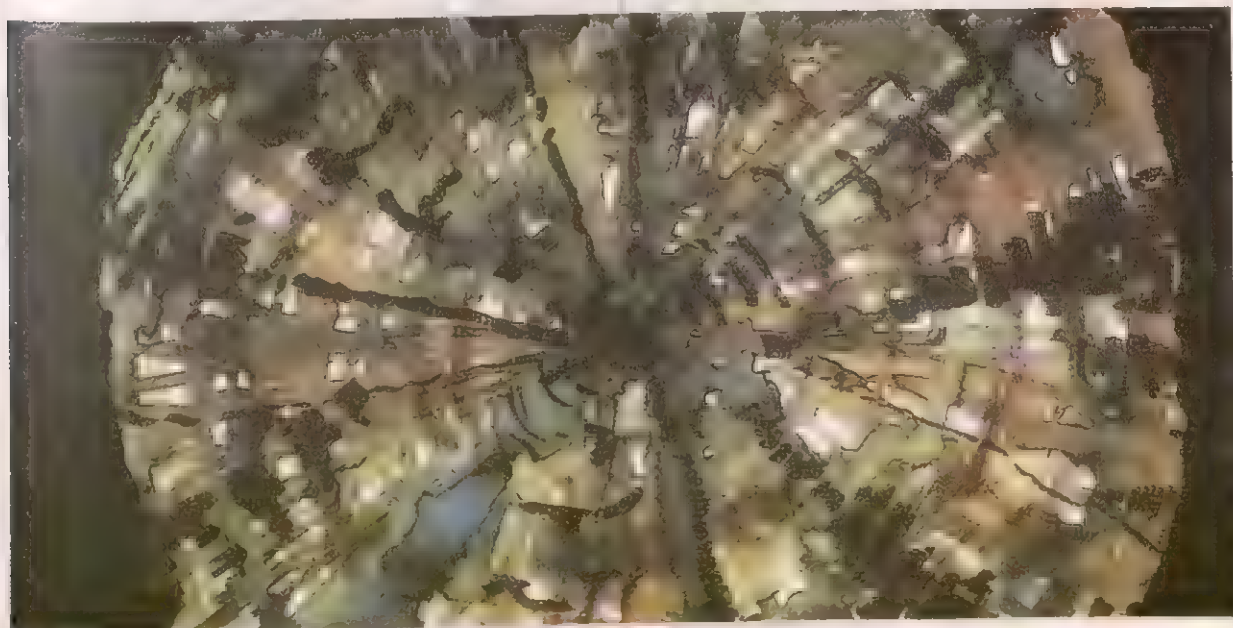
## Vocational Education

Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal is the national apex research and development organisation in the field of Vocational Education. It is also the only centre of International Project on Technical and Vocational Education (UNEVOC) in India, which is administered by the UNESCO. The aim of the PSSCIVE is to provide R&D and technical support to a variety of vocational education programmes.



**I**MPROVEMENT of Work Education at all stages of school education has been a major concern of the GOVT. Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal is the national apex research and development organisation in the field of Vocational Education. It is also the only centre of International Project on Technical and Vocational Education (UNEVOC) in India, which is administered by the UNESCO. The aim of the PSSCIVE is to provide R&D and technical support to a variety of vocational education programmes. The important functions of the PSSCIVE include: to advise and assist the Ministry of Human Resource Development (MHRD), Government of India, State Governments and Union Territory Administrations in the implementation of Vocational Education and Work Experience Programme (VEP and WEP); to function as the technical wing of the Joint Council of Vocational Education (JCVE) and the MHRD on all matters relating to VEP and WEP; to promote, supervise and guide the establishment of comprehensive management system for Vocational Education at different levels, i.e. national, state, district and institutional; to function as overall resource institution

in the area of Vocational Education and Work Experience both formal and non-formal; to study and monitor the educational requirements of the country as a whole in regard to preparing manpower for development; to develop need-based vocational programmes for neo-literates and other special groups; to undertake, guide and co-ordinate curriculum and instructional material development, staff development and training, dissemination of literature and research findings; monitoring and evaluation and to offer consultancy to State Governments in the area of VEP and WEP; to ensure the uniformity of pattern in the context of national system of vocational education and to maintain quality standards including those of teaching professionals at all levels; to promote excellence at all levels of various types of vocational education programmes both formal and non-formal throughout the country; to cater to the needs of research and other studies in the field of VE and WE in the related and supportive areas; to establish equivalence of certificate and to accredit vocational institutions and programmes while keeping the quality parameters in view; to promote a national, regional and international network of vocational



education information systems and services based on voluntary cooperation of related and other organisations and facilitate effective access to information, and to look after the international aspects of vocational education and human resources development.

## **Development**

### **Vocational Curriculum**

Curricula on Clothing for the Family, Seed Production Technology, Co-operation, Taxation, Computer Science, Medical Laboratory Technician, Purchasing and Store-keeping, Electronic Technology, and X-Ray Vocational Courses were revised. New Vocational Education curricula on Rural Informatics Management, Handicrafts, Computer Aided Drawings and Drafting and Computer Aided Multi-Media Materials were developed. A Curriculum Addendum on Integration of Environmental Components with Vocational Curriculum in the area of Agriculture was also brought out.

### *Development of Instructional Materials for Vocational and Pre-Vocational Courses (Neo-Literate Adults)*

Instructional Materials pertaining to the Vocational Courses in the area of Marketing and Salesmanship, Institutional House Keeping, Crop-Production, Catering and Restaurant Management, Inland Fisheries, and Automobile Engineering Technology were developed. Training Modules for Vocational Guidance Teachers were prepared. Instructional Materials on Cosmetic Production for pre-vocational education were also developed. Ten manuscripts of materials on vocational education and 10 manuscripts of materials on Pre-Vocational Education have been sent for publication. Twelve books/manuscripts belonging to the following seven vocational courses have also been sent to the State Governments, SCERTs, Boards of Secondary Education in the States/UTs;

- ☐ Dairying
- ☐ Commercial Garment Designing and Making
- ☐ Textile Designing
- ☐ Horticulture
- ☐ Poultry Farming
- ☐ Bakery and Confectionery
- ☐ Crop Production

Neo-literates and school drop-outs form a large group of youth in the country which is looking for gainful employment and training. Instructional Materials in the area of Inland Fisheries, Protected Cultivation, Garment Finishing and Decoration, Repair and Maintenance of Solar Cooker and Handpump, Processing and Production of Food Items through Dehydration, and Conservation and Management of Soil and Water for Sustainable Development have been developed for training of Neo-literates.

### *Framework for a System of National Vocational Qualifications*

A draft framework for a system of National Vocational Qualifications: Testing and Certification of Competencies for various levels of Occupations in Dairying has been developed. The framework also includes curricula for 90 occupations.

## **Training**

### *Teachers Training Programmes*

In order to improve instruction in the vocational schools, 13 teachers training programmes in the area of Creche and Pre-School Management, Commercial Garment Designing and Making, Auditing and Accounting, Vocational Guidance and Counselling, Office Management, Environmental Education, Computer Science, Entrepreneurship Development, and Repair, Maintenance and Rewinding of Electric Motors were organised. One training programme for the Generic Vocational Course (GVC) Resource Persons and two programmes exclusively for the teachers of Madhya Pradesh in the area of Engineering and Technology and Business



and Commerce were also organised.

### *Training Programmes for the Key Functionaries of States on Vocational Education*

A short-term training programme was organised for key functionaries of the States of Andhra Pradesh, Goa, Orissa, Maharashtra and Bihar to bring about conceptual clarity with regard to implementation of the programmes of vocational education and pre-vocational education.

### *Extension*

#### *Orientation Programmes*

Fifteen orientation programmes on Vocational Education for more than 500 key functionaries from various States and UTs were organised. One orientation programme was exclusively organised for 24 teachers of the Demonstration Schools of all the four Regional Institutes of Education. One orientation programme was organised for the teachers of Assam. An orientation-cum-development programme on paper setting in vocational courses was organised at the instance of the SCERT, Manipur. Two orientation programmes on pre-vocational education were conducted for 93 key functionaries of Gujarat and Bihar. An orientation programme on pre-vocational education was organised at the request of the Government of Maharashtra. In a national seminar on Economic Empowerment of Women through Vocational Education organised by the NCERT, 28 representatives from women's organisations, NGO's, educational institutions, etc., participated.

#### *Foundation Day Awards*

On the occasion of the fourth foundation day celebration of the PSSCIVE, Bhopal held on 5 July 1997, distinguished educationists and 200 invitees including 39 recipients of different awards

participated. The following awards for promotion of Vocational Education programme were given:

1. Best Full-Time Vocational Teacher Award (One for each state)
2. Best Vocational School Award (One for each state)
3. Best School-Industry Linkage Award (One for each state)
4. Top Two Achievers Awards (Two per state based on the result of the Higher Secondary Examination in the state.)

A Memorandum of Understanding (MoU) was signed by the Commissioner of Public Instructions, Madhya Pradesh and the Joint Director, PSSCIVE for 14 Lab. Schools in Bhopal and neighboring areas. Several documents (curricula, instructional materials, guidelines etc.) and video films developed by the PSSCIVE were released on this occasion. An exhibition of PSSCIVE publications, vocational quiz and cultural programme were also organised on this occasion. Prizes were given to the winners of vocational quiz and cultural programme.

#### *Career Conferences in Lab. Schools*

Career Conferences in 14 Lab. Schools in Bhopal and neighbouring areas were organised during 15 December 1997 to 23 January 1998 (14 days). The main objectives of this programme were: (i) to create awareness about the vocational courses amongst the students of Class X, (ii) to help the vocational students in their future career planning, and (iii) to help the vocational teachers in actual administration of the scheme. A team of PSSCIVE faculty members, one each from all the six divisions, visited the schools and participated in the conference.

#### *Journals*

One issue each of the *Indian Journal of Vocational Education* and the *Quarterly Bulletin of Vocational Education* was

published. Three issues of the Bulletin were under print. The Quarterly Bulletin of Vocational Education is sent to over 4000 schools in the country and state key functionaries.

### **Extension Lecture Series**

For professional enrichment of the faculty and sharing of experiences, one extension lecture by an eminent educationist and three lectures by the internal faculty members of PSSCIVE on different aspects of vocational education were organised.

### **Exhibitions**

Three exhibitions for popularisation of Vocational Education were organised at the Gandhi Medical College, Bhopal; the Regional Institute of Education, Bhopal; and the Bhagwan Kala Kendra (Vocational Training Centre run by the Nav Yuvak Parishad), Bairagarh, Bhopal. Various materials on vocational education such as competency-based vocational curricula, instructional materials, guidelines, reports and popularisation folders of various vocational courses were displayed. About 2500 students of various schools visited the exhibitions.

### **Research**

The following research projects in Vocational Education are in progress:

1. Comparative Study of Implementation of General Foundation Courses in Different States
2. Benchmark Survey of Vocational Guidance in States
3. Status Study of Vocational Pass-outs of Business and Commerce Based Vocational Courses in India
4. Career Aspirations of Girls in Urban and Rural Societies vis-a-vis Vocational Education
5. Establishment of School Industry Linkage in Secondary Vocational

Schools — Action Research.

6. Comparative Evaluation of Quality and Standard of Vocational Curricula and Instructional Materials in Selected States.

### **Evaluation**

The Joint Evaluation Team (JET), constituted to evaluate the work of the voluntary organisations running vocational courses and receiving grants from the MHRD, visited two NGOs of Madhya Pradesh at Gwalior and submitted its report to the MHRD.

### **International Relations**

The PSSCIVE of NCERT as UNEVOC Centre for India has been very active as regards its role and contributions in the international arena through UNEVOC activities under UNESCO. Its faculty members participated and contributed in five UNEVOC activities outside India. The NCERT has initiated action for implementation of the Cultural Exchange Programme (CEP) with Russia in the context of exchange of information and experts in Vocational Education.

### **Regional Level Inputs to Vocational Education**

The RIE, Ajmer conducted two training programmes for +2 vocational teachers in Accountancy and Office Management/Secretarial Practice and developed Practice Sets in Financial Accounting. The RIE, Bhubaneswar developed a training package on Guidance and Counselling for Principals of Vocational Schools.

### **Reports and Other Materials Brought Out During 1997-98**

#### **General Publications**

1. Quarterly bulletin of Vocational Education, Issue-IV, Vol.II January-March 1997
2. Quarterly bulletin of Vocational



*Education, Issue-I, Vol. IV April-June, 1997*

*Indian Journal of Vocational Education, Issue-II, Vol- I*

*Curriculum Development/Revision*

1. Competency Based Vocational Curriculum on Horticulture
2. Competency Based Vocational Curriculum on Textile Designing
3. Competency Based Vocational Curriculum on Building Maintenance
4. Competency Based Vocational Curriculum on Inland Fisheries
5. Competency Based Vocational Curriculum on Dairying
6. Competency Based Vocational Curriculum on Rural Engineering Technology
7. Competency Based Vocational Curriculum on Crop Production
8. Competency Based Vocational Curriculum on Maintenance and Repairs of Electrical Domestic Appliances
9. Competency Based Vocational Curriculum on Automobile Engineering Technology
10. Competency Based Vocational Curriculum on Repair of Power Driven Farm Machinery
11. Competency Based Vocational Curriculum on Learning for Productivity
12. Competency Based Vocational Curriculum on a Strategic Plan for Vocationalisation of Education
13. Competency Based Vocational Curriculum on Institutional House Keeping (xeroxed)
14. Competency Based Vocational Curriculum on Rural Informatic Management (xeroxed)
15. Competency Based Vocational Curriculum on Mechanical Engineering Technology (xeroxed)

16. Competency Based Vocational Curriculum on Office Management (xeroxed)
17. Competency Based Vocational Curriculum on Banking Management (xeroxed)
18. Competency Based Vocational Curriculum on Bakery and Confectionary (xeroxed)
19. Competency Based Vocational Curriculum on Catering and Restaurant Management (xeroxed).

*Posters :* 1. On Girls' Education  
2. Health and Paramedical  
3. Folders on Agriculture

*Instructional Materials/Textbooks/Practical Manuals*

1. Institutional House Keeping (xeroxed)
2. Feeds and Feeding of Dairy Animals: Textbook for Class XII (xeroxed)
3. Poultry Diseases and their Control : Textbook for Class XII (xeroxed)
4. Instructional Material of Crop Production : Textbook for Class XI (xeroxed)
5. Elements of Crop Production: Practical Manual for Class XI (xeroxed)
6. Post-Harvest Technology : Practical Manual for Class XII (xeroxed)
7. Post-Harvest Technology : Textbook for Class XII (xeroxed)
8. Fundamentals of Horticulture: Textbook for Class XI (xeroxed)
9. Clothing Construction: Textbook for Class XI (xeroxed)
10. Advanced Designing : Textbook for Class XII (xeroxed)
11. Advanced Weaving, Dyeing and Printing Material : Practical Manual for Class XII (xeroxed)
12. Basic Confectionery: Textbook for Class XI (xeroxed)

13. Aquaculture : Textbook for Class XI (xeroxed)
14. CGDM-Marketing and Unit Management: Practical Manual for Class XII (xeroxed)
15. Poultry Housing and Management: Textbook for Class XI (xeroxed)
16. Basic Design to Textile Designing (xeroxed)
17. Textile Craft : Practical Manual for Class XI (xeroxed)
18. Apparel Designing : Practical Manual Class XI (xeroxed)

#### *Pre-Vocational Courses*

1. Repair and Maintenance of Tillage Sowing Equipment (xeroxed)
2. Repair and Maintenance of Plant Protection (xeroxed)
3. Repair and Maintenance of Power Thresher (xeroxed)
4. Tie and Dye (xeroxed)
5. Batik (xeroxed)
6. Soft Toys (xeroxed)
7. Bamboo Craft (xeroxed)
8. Doll Making (xeroxed)







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## Educational Technology

During 1997-98, 110 audio programmes were produced. A series of 12 audio programmes on 'Struggle of India's Independence' was produced on 6 cassettes. 7200 cassettes of these programmes have been dubbed for dissemination.

The NCERT's entry *Billi Ka Panja* won special commendation prize in the NHK Japan International Education Programme Contest. The NCERT had won an NHK award last year also.

**A**s a premier institute in educational technology, the Central Institute of Educational Technology (CIET), a constituent of the NCERT, is mainly concerned with development of video and audio programmes, 16mm films and other learning materials, training of personnel in educational technology, media planning, script writing programme, production and technical operation. It is also concerned with conducting research in various aspects of media planning and production, documentation and dissemination of information and material and consultancy in applications and development of educational technology.

### **Tarang**

The CIET is currently feeding a service titled 'Tarang' for young children from the Doordarshan (DD-1). The Educational Television programmes under this service are telecast to children and teachers in 10 States. The duration and days of telecast have since been reduced to 30 minutes and five days a week from the original 45 minutes and six days a week. The Saturday chunk meant for the teachers have been taken away. Efforts are on to get the service restored to its original schedule. During 1997-98, 155 video programmes and 52

continuities were produced. Most of these were previewed in-house, capsuled and sent for telecast.

### **Umang**

The NCERT has also been broadcasting a weekly audio programme to young children from the All India Radio (AIR). The service is of 10 minutes duration and is titled 'Umang'. These programmes are broadcast from 10 AIR stations: Allahabad, Lucknow, Jaipur, Jodhpur, Bhopal, Indore, Patna, Rohtak, Shimla and Delhi. The MoU signed for the purpose with the AIR has since been renewed for the coming year as well.

### **Educational Television Programmes**

To provide video support in Mathematics and Science for Classes X and XII, the NCERT produced a package of 30 video programmes for Class X and 53 video programmes for Class XII covering the entire syllabi in Mathematics. Support print materials consisting of pre- and post-viewing activities, practical exercises and references for further studies have been prepared. A series of 60 programmes on difficult concepts in Science for Class X have been identified and programme-briefs worked out. Eight ETV programmes were produced





for use as inserts in one week teleconferencing programme organised for 800 teachers of 45 DIETs in Madhya Pradesh. This was besides 25 hours of video coverage provided to the live lectures and question-answer sessions. The areas of coverage included functions of DIETs, universalisation of elementary education, micro teaching, teaching aids, need-based assessment and development of research activities etc. A video programme of 38 minutes duration titled *Shikshan Pranali* for education of the nursery teachers was also prepared.

### **Educational Audio Programmes**

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### **NHK Award**

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### **Educational Films**

Eight Films under the 'Land and People' series titled 'Vibrant Ranges' (Hindi version- *'Sanvedansheel Parvatmala'*), 'Nectar from a Plateau' (Hindi version - *Samrudh Pathar*), 'A Recipe for Growth' (Hindi version- *'Unnati Ke Aayam'*), 'By the Sweat of their Brows' (Hindi version- *Mehanat Ka Pasina*) had been completed earlier. Under the same series, two more films 'The Abode of the Gods' (Hindi version- *Dev Bhumi*) were completed (except processing of final print from laboratory). Hindi version of the film 'Solar Eclipse' titled *Surya Ki Tajposhi* was also completed. English and Hindi versions of the films titled 'Warrior Land' and *Veer Bhumi* under the 'Land and People' series are in the final stages of editing.

### **Training**

A three-week orientation course on 'Basics of ETV Programme Production and Technical Operations', was conducted for 27 participants comprising of faculty members, producers, script-writers, camera persons, editors, researchers and technicians to enable them develop programme objectives, conduct research, prepare scripts plan and produce educational television programmes. A 13-week technical training programme in Lighting, Camera Operations, Editing and General Maintenance of Studio Equipment was organised for the students of Polytechnic-College, Bhopal, studying in the Diploma Course in Applied Videography. These students developed five video programmes as a part of their final exercises. A training course was organised for 25 participants from the Shramik Vidyapeeth, R.K.Puram, New Delhi on various equipments like OHP, Slide Projectors, 16mm Film Projector, VHS-VCR and U-matic, Low Band VCR and Audio Amplifiers. Participants from the National Literacy Mission, New Delhi also participated in the training course. A 10-day Orientation Workshop for ETV Script writers was organised to reorient the writers to the requirements of the visual medium, develop scripts on the selected themes; and in the process developing a cadre of script writers whose expertise can be utilised by the institute in future programme-productions. Four groups, one each for language and mathematics and two for environmental studies, worked to develop 15 scripts. These scripts were field tested for use in the CIET productions. Two Orientation Programmes for teacher educators at the Primary level for DIETs faculty and at the secondary level for the faculty of the IASEs and the CTEs, respectively were organised to familiarise them with the theoretical and practical frameworks of educational technology, characteristics and potentials of various educational media, techniques of classroom instructions, advance computer

technologies and evaluation processes. The participants undertook practical work related to the development and use of media programmes.

### **Research and Evaluation**

Four series of educational TV programmes on mathematics, diseases and science concepts, environmental studies, and globe in geography were field tested. The reports of three of these studies were brought out and disseminated to State Institutes of Educational Technology (SIETs). These studies indicate the extent of understanding of the various ETV programmes on the part of the children, their likings and dislikings, and their ability to sustain attention.

The mathematics programmes produced for the Classes X and XII were field tested and a report titled 'Tele-Math: An Evaluation' was brought out. The report revealed that students were keenly interested in watching the programmes as a support material to classroom teaching with the help of textbooks.

Research articles/abstracts pertaining to children and Educational Television (ETV), Radio and Multimedia programmes have been collected and categorised under the project 'Research Implications for Media Production' which span the years 1980-1996.

A Study to Assess the Needs for Educational Media Programmes about Physical Conditions and Curricular Requirements for Upper Primary School Teachers and Children was initiated. Data from 25 schools was collected and analysis undertaken.

A research study to know the 'Effectiveness of the Radio Broadcasts' under the service titled *Umang* on the Cognitive Development of Anganwadi children was initiated. The tools for the study were developed.

Criteria for an effective ETV programme were evolved by a group comprising of educationaists, media personnel, researchers and curriculum specialists. It discussed various factors which have impact on the effectiveness of an ETV programme. The daily ETV transmission was monitored regularly to observe the quality of the programmes, quality of capsuling, continuity and linkage among the programmes in a capsule and extent of repetition etc. Interruption in the schedule of telecast were also noted. The reports were prepared month-wise and shared among the faculty members.

### **Extension**

About 200 programmes were got transferred on VHS and other cassettes for making them available to different educational institutions including the constituents of the NCERT. In addition, 1000 sets of audio programmes, containing 5 cassettes each, were provided to the Department of Culture, Ministry of Human Resource Development. To ensure a wider distribution and accessibility to public at large, the NCERT has entered into agreements with the Amicron Magnetics, Electronic Trade & Technology (ET&T) Corporation and New Age Publications for getting copies of its selected audio and video programmes made and marketed to the educational institutions and individuals.

The 'Central Film Library' of the CIET issued 406 films to the members for screening. Two new 16 mm films were added to the Library. For the Book Library, 44 new books were acquired. The Audio and Video Libraries encountered heavy traffic and were used extensively by the SIETs, DIETs and other educational institutions.

Consultancy services were provided to the DIETs in Chennai for procurement of studio equipment and setting up of direct transmission link.



### CIET-SIETs Coordination

In the context of discharging its responsibility of coordinating the activities of SIETs in the States, in their academic and media production activities as also in maintaining the technical studios, two meetings of CIET-SIETs Coordination Committee were organised to formulate the principles underlying the smooth functioning of the SIETs, and for the formulation of Educational Broadcast Policy by the MHRD and starting of regional transmission of programmes by the SIETs.

### Reports and Other Materials Brought Out during 1997-98

Field Testing of Educational Television Programmes in Mathematics (word processed)

Comprehensibility of Educational Television Programmes; *Dhai Sawal and Tayi Ki Chaupal* series: A Report

of Field Testing (word processed)

3. Orientation Workshop on ETV Script Writing : A Report ((word processed)
4. Field Testing of Educational Television Programmes on Environmental Studies (word processed)
5. Tele Math: A Report of Evaluation Study (word processed)
6. Orientation Workshop on ETV Script Writing
7. Development of ETV Tutorial Programme Scripts in Maths for Classes X and XII
8. Monitoring and Evaluation of ETV (TARANG)
9. ETV Programme Briefs in Science for Secondary Level (mimeographed)
10. Orientation of DIETs on Educational Technology : A Report.



Teleconferencing

## Computer Education and Technological Aids

Research and developmental activities pertaining to science kits for schools, production of prototypes, experimental trial and training of teachers on the new designs continued. The NCERT's Science Kits were introduced in the school system in the country during 1969-70. The continuity has been maintained and its two designs, the Primary Science Kit and the Mini Tool Kit, were included in the list of essential facilities for the primary level under the 'Operation Blackboard (OB)'.



**T**HE NCERT continued to give attention to issues and problems in Computer Education and related research and development in modern technological aids/media in its programmes and activities. The Computer Education Programme envisages developing courseware using multi-media curriculum of computer education, micro-processor-based experiments, survey of computer education in India, and training of teachers to use the computer as a tool to store, retrieve and analyse data, etc. A Computer Resource Centre (CRC) covering various aspects of computer education in schools has been set up. In addition to computing facilities for everyday work, the CRC provides the Internet and E-mail connection for extensive use by the faculty to access global information related to education, in general, and school education, in particular. Steps are being taken to develop the CRC into an electronic resource centre in the field of school education; and as a preparatory activity, materials are being developed off-line for putting up onto the Web Site of the NCERT. Four programmes to train the faculty and the staff of the NCERT in the use of computer in their work related situations like educational research and office

management were organised during 1997-98.

### Technological Aids

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undertaken and an interface and temperature sensor etc., were developed. These are being refined. A model of Hydrogen Burner is being developed. Nine trade apprentices were trained. A training programme was imparted to 30 Students of ITI, Khichripur and five students of ITI, Pusa in Plastic Processing.

### **Regional Level Inputs in Computer Education**

The RIE, Bhopal organised training of Key Resource Persons (Mathematics teachers) in concepts related to computer education and computer application courses for the teachers of the Demonstration Multipurpose School. In RIE, Mysore, the 'Computer Application Laboratory' has been catering to the needs of the southern

states' educational personnel in the area of computer utilisation and data processing. Training programmes were organised on awareness and utilisation of computers in educational data processing.

### **Reports and Other Materials Brought Out during 1997-98**

1. Exemplar Curriculum on Internet Education (xeroxed)
2. Evaluation Report based on Field Trip out of the NCERT Book 'Computer Literacy' (xeroxed)
3. Courseware PTABLE on Electronic Media (xeroxed)
4. Courseware 'Visual Perceptual Disorders on Electronic Media' (xeroxed)





## Special Programmes

The DPEP Core Resource Group (DPEPCRG) strives for effective coordination, execution and monitoring of task for the national component of DPEP and is also responsible for timely conduct of the Baseline Assessment Surveys (BAS) and Mid-term Assessment Surveys (MAS). Nine 10-day training programmes were organised for Master Trainers at State level for MAS and BAS States. Mid-term Assessment was initiated and monitored in seven DPEP Phase-I States. BAS were conducted for 18 districts in Andhra Pradesh and 10 districts in Rajasthan.

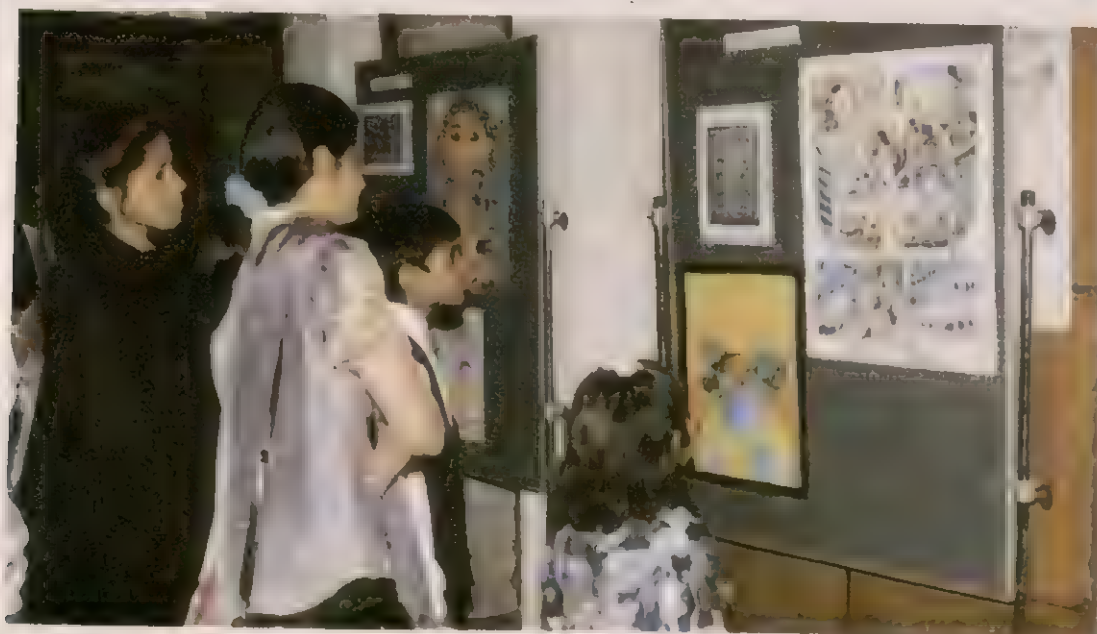
**T**HE District Primary Education Programme (DPEP) was started in 1994 in 42 districts in seven States (Assam, Kerala, Haryana, Karnataka, Tamil Nadu, Madhya Pradesh and Maharashtra) and the first phase was termed as DPEP-I. The programme has now been expanded to six new States (Orissa, Gujarat, Arunachal Pradesh, Andhra Pradesh, West Bengal and Uttar Pradesh) and 80 more districts, including new districts in DPEP-I States. The second phase is referred to as DPEP-II. In the districts included in the programme, the effort is to achieve UPE through increasing accesses, retention and quality of learning as well as development of sufficient capacity to sustain the inputs made during the seven years of the project.

One of the central concerns of the DPEP is to improve the quality of primary education. The focus has been on establishing a pedagogical vision of child-centred and activity-based teaching-learning in classrooms.

The following resource groups have been set up in the NCERT to provide inputs to the DPEP programmes and activities in the country:

- ❑ DPEP Resource Group on Curriculum
- ❑ DPEP Resource Group on Teacher Training
- ❑ DPEP Resource Group on Research Activities
- ❑ DPEP Core Resource Group.

The DPEP Core Resource Group (DPEPCRG) strives for effective coordination, execution and monitoring of task for the national component of DPEP and is also responsible for timely conduct of the Baseline Assessment Surveys (BAS) and Mid-term Assessment Surveys (MAS). Nine 10-day training programmes were organised for Master Trainers at State level for MAS and BAS States. Mid-term Assessment was initiated and monitored in seven DPEP Phase-States. BAS were conducted for 18 districts in Andhra Pradesh and 10 districts in Rajasthan. As a precursor to BAS and MAS, research tools were revised and reformulated. The Framework for Analysis of Data was reformed for the BAS in Rajasthan. Through its documents 'Trend Analysis of Learner's Performance' and 'Three Years of DPEP and Learner's Achievement', the DPEPCRG has provided indicators for mid-term corrections and





established pointers for futuristic planning of programmes under the DPEP.

The Advisory Committee on DPEP met on 18 May 1997. National Workshop for developing study-proposals for 'Mid-term Assessment Survey' was organised on 5 June 1997. The progress of DPEP activities was reviewed by the Coordination Committee of the DPEP in its meetings held on 7 July and 29 October 1997; 6 January and 16 March 1998. The In-depth Review Mission of DPEP met on 6 October 1997. A meeting of the NCERT faculty with the Seventh Joint Supervision Mission for DPEP was held on 23 March 1998.

### **Curriculum Activities**

#### **The Primary Years : A Curriculum Framework**

Under the activity 'Development of Training Modules for Key Resource Persons in Specific Thrust Areas of Primary Level Curriculum', renamed as *The Primary Years*, a document *The Primary Years : A Curriculum Framework* has been developed in two parts. For this purpose several workshops were conducted. The document is characterised by its unique and different treatment to stages of primary years. Part I of the document has emerged in its final shape providing the framework for curriculum development and implementation. Part II of the document specifying details of the different curricular areas is under preparation.

#### **Resource Support for Multigrade Teaching-Learning**

In order to develop a strategy and action-plan for improving school outcomes in small schools working in rural areas having two/three teachers teaching all classes in primary schools, an action research project was initiated in three clusters in one block each in Andhra Pradesh, Madhya Pradesh,

Maharashtra and Uttar Pradesh. The activities conducted under this programme include: selection of clusters, adoption of test material, orientation of test administrators, development of profiles of schools included in the experimental clusters, administration of the bench-mark test and conducting workshops involving teachers, cluster resource persons and block resource persons to develop teacher support materials based on the transactional curriculum for multigrade teaching evolved under the action plan.

Three case studies were also conducted with reference to multigrade teaching under the DPEP. One of the studies was conducted in rural government schools of Haryana in order to ascertain the status of the multigrade schools. Other case studies on the Society for Integrated Development of Himalayas (SIDH) and Rishi Valley Organisations were conducted to study the innovative practices adopted by them in multigrade set-ups and the derived lessons for wider infusion of innovations. The reports of the studies have been disseminated to the concerned agencies.

#### **Diagnostic Tests in Language and Mathematics**

In order to determine the status of the learner's development and identify his/her learning difficulties and areas of strengths and weaknesses, diagnostic tests were developed in language and mathematics for primary classes. These tests will be tried out in schools and finalised. These tests can be utilised by teachers, teacher educators, educational planners and the agencies working in the area of primary education to improve achievement of learners.

#### **Evaluation of Textbooks developed under DPEP**

The evaluation of primary level textbooks developed under DPEP has been carried out

for Kerala and Madhya Pradesh. Earlier the tools for process evaluation of textbooks and for collection of information from the field (Observation Schedules, Interview Schedules etc.) were developed. Meetings with authors, teachers, parents and administrators involved in the development of textbooks, classroom observation and interviews with teachers and children were organised. Workshops for linguistic and thematic analysis of textbooks were organised. The evaluation reports are being prepared.

### **Evaluation of ECCE Component in DPEP**

At the request of MHRD, a rapid evaluation of the ECCE Component of the DPEP Phase-I was mounted by the NCERT. The States of Assam and Madhya Pradesh were required to be studied from the point of view of the ECCE Centres established under DPEP. The States of Haryana and Tamil Nadu were to be studied from the stand-point of convergence initiatives undertaken to strengthen and support ICDS. In Maharashtra, Karnataka and Kerala specific activities undertaken in ECCE were required to be stated. Consolidated observations, recommendations and reports were submitted to MHRD.

### **Role and Functioning of BRCs and CPS: An Assessment Study**

At the request of the Educational Consultants India Ltd. (EdCIL), the NCERT undertook a study to assess the status and functioning of the Block Resource Centres (BRCs) and the Central Primary Schools (CPS) in Maharashtra in the context of DPEP. The main purpose of this study was to assess the constitution and roles and functions of the block level and cluster level bodies to assess the kind of resource support available at these centres and to document innovative practices adopted, if any. A detailed report has been prepared and submitted to EdCIL.

A two-day workshop for 20 State level Resource Persons was organised on 5-March 1998 at the request of DPEP (UP). The sessions focused on the new thrusts being advocated with respect to the primary level curricula for each of the curricular areas. The workshop also devoted a session deliberating the place of the MLLs in the curriculum.

### **Teacher Training Activities**

#### **Case Study of Effective Training Practices**

In order to document in-service training practices, a project titled 'Comprehensive Quality Improvement for Primary and Secondary Schools', being organised by HBSCSE, Bombay has been identified for the case study. The print material relating to the identified practice had been collected and reviewed and the in-service training has been observed at Nasik from 17-21 November 1997. A Report of the case study has been prepared.

#### **Identification of Primary Teachers Training Needs**

Under this study, a 'Conceptual Framework of the Needs Assessment Procedure' was developed. The Tools developed for the study included: (i) Diagnostic Tests for assessing Teachers Needs in Mathematics, Language (Hindi), Science and Environmental Studies; (ii) Teachers' Training Need Assessment Scale; and (iii) Classroom Observation Scale for identifying Teachers' deficiencies in Skills and Content of different subjects. Try-out of tools was done on 10 primary teachers. The data for the study was collected from 50 primary teachers at the District Institute of Education and Training, Hapur.

#### **Adaptation of Block and Cluster Resource Centres**

In order to provide academic support for the effective functioning of Block Resource Centres (BRCs) and Cluster Resource



centres (CRCs) the District, BRCs and RCs were selected and their profiles were prepared. A meeting of task leaders held on 12-13 November 1997 discussed the profiles, decided the framework for working with BRCs, and designed the interventions for implementation.

### **Primary Teachers' Essential Competencies**

After identifying essential competencies for primary teachers, the report of the study was finalised.

### **Training of States' Personnel in Monitoring and Evaluation of In-service Training of Primary Teachers**

Under this project the following training modules were developed: (i) Monitoring and Evaluation of Training Quality-Conceptual Framework; (ii) Evaluating Quality of Training - A Case Study of Haryana; (iii) Training Quality: Perceptions of Teachers; (iv) Assessing Training Quality through Achievement Tests; (v) Focused Group Discussion: Meaning and Procedure and (vi) Classroom Observation Techniques of the Training modules. The Report of the project was prepared.

### **Research Activities**

#### ***International Seminar on Teacher Empowerment and School Effectiveness at the Primary Stage***

This seminar was organised at Vigyan Bhavan, New Delhi from 23-25 July 1997. As a prelude to this seminar, the NCERT conducted four Regional Seminars during April-May 1997 at its Regional Institutes of Education (RIEs) located at Ajmer, Bhopal, Bhubaneswar and Mysore for identifying promising papers for the main event. Of the 380 papers received, 183 were short-listed for presentation in the Regional Seminars. Finally, on the basis of the evaluation of presentations and scrutiny of overseas contributions by a Jury, 40 Indians and 10 overseas contributions

(from the Netherlands, the U.K., Ireland, Germany, New Zealand, Denmark, and the USA) were selected for the International Seminar. Representatives of the European Commission, World Bank, UNDP, ODA, DPEP Bureau of the Government of India, Departments of Education of Indian Universities and senior NCERT faculty members participated in the seminar.

The proceedings of the seminar were documented and published under the title *Teacher Empowerment and School Effectiveness at Primary Stage*. A volume containing papers presented in the seminar was also prepared. Suggested action points were prepared after studying the proceedings and papers of the three International Seminars organised under the aegis of the DPEP. Action was initiated for conduct of regional seminar as forerunners to the 1998 International Research Seminar on 'Researches in Learning Organisation, Community Participation and School Effectiveness at Primary Stage'.

### **Research Studies on Primary Education**

Fourteen research studies pertaining to various aspects of primary education were conducted by the different constituents of the NCERT. The titles of the studies are given on page 100.

### **National Population Education Project (NPEP)**

A meeting of the 'National Steering Committee on Population Education' and two Projects Progress Review meetings were organised. Work Plans and Budget Estimates for 1998 were prepared. Quarterly Progress Reports from States/UTs were collected, reviewed and consolidated and were sent to the MHRD and the UNFPA. Monitoring of the implementation of project activities was done through visits to the States/UTs. Cooperation was extended to the UNFPA, UGC, Directorate of Adult Education and NACO in their activities.

## DPEP Research Projects Undertaken during 1997-98

### **RIE, Ajmer**

1. Development of a Methodology for Planning for Teachers in DPEP Schools
2. In-depth Case Study of Effective Schools in Haryana

### **RIE, Bhopal**

3. Impact of Readiness Programme on the development of Fine Motor Coordination of Rural School Entrants
4. A Study of Informal Acquisition of Some Elementary Mathematical Skills by Uneducated
5. Anthropological Study of Multigrade School Settings
6. Management of Learning Environment and Teaching-Learning Processes in Multi-grade Teaching in Primary Schools of DPEP Districts of Gujarat— A Status Study

### **RIE, Bhubaneswar**

7. Methodology of developing Culture Specific and Contextual Pedagogy and Discourses for Rural Multigrade Schools
8. Effect of Mastery Learning Strategies

in attainment of Selected Competencies in Mathematics of Classes I and II

9. Intervention Strategies to improve Cognitive Processes of children of Rural Primary Schools in finding Solutions to Addition and Subtraction Problems

### **RIE, Mysore**

10. Impact of Teachers' Motivation to Work on their Classroom Practices
11. Teacher Competencies and the Achievement of Learners in Tribal Areas
12. Impact of Interventional Strategies for Overcoming Language Problems faced by Non-masters from Multigrade Schools of Mysore Taluka Karnataka

### **Field Office, NCERT, Patna**

13. Development of Contextual Training Methodology for Primary Teachers of Single/Two Teacher Multigrade Schools

### **DERPP, NCERT, New Delhi**

14. A Case Study of Innovative Primary Teachers of Haryana

The developmental work under the NPEP include: (i) Project Documents for 29 States and UTs for the new phase of National Population Education Project, 1998-2001; (ii) The National Document for the new phase of the project (Population and Development Education in Schools); (iii) A package of Basic Materials on Adolescence Education; and (iv) First part of the Training Package in Population Education. The Package of Basic Materials on Adolescence Education was sent to the States.

Two training programmes in new strategies of Population Education were jointly organised for the project personnel of the three education sectors— School Education, University Education and Adult Education.

Tools for the study on the 'Adolescents' Awareness and Attitude towards the Process of Growing up' were prepared.

### **Co-curricular Activities**

The national component of the



international Poster Contest, 1997 was organised and entries were sent to the UNFPA headquarters. The posters were analysed for the study of the 'Perception of Population and Development Issues' by school students.

The RIE, Bhopal celebrated the Population Education Week by organising a guest lecture on the World Population Day and an Inter-School Painting and Essay Competition. 'Learning Material in Adolescence Education in Hindi' was also prepared and tried out.

The RIE, Bhubaneswar observed the Population Education Week and organised various competitions such as Essay writing, Quiz, Debate, Drawing and Painting etc. An orientation programme on Population Education was also organised for the DIETs faculty of North Eastern States of Manipur, Mizoram, Assam and Arunachal Pradesh.

### **Environmental Orientation to School Education**

Environmental Education is an integral component of school curriculum. The environmental, social and economic concerns particularly related to development are getting increased focus in school level curricula and educational activities. With growing environmental problems and serious environment and development issues, large number of organisations, both governmental and non-governmental are engaged in Environmental Education activities involving school system. There is a need to channelise these efforts for better interaction and exchange through networking. A National Resource Centre for Environmental Education (NRCEE) was set up at the National Institute of Education (NIE), NCERT in 1996-97 to promote more intense interaction among the school system, educational planners, curriculum developers and teacher trainers on the one hand and specialised institutions on the other. The Centre aims at collection of

Environmental Education information and materials; process, classify and disseminate the information to various institutions involved in school education and specialised activities on environment. The Centre is also developing Environmental Education Data Bank on various aspects of Environmental Education.

The MHRD sponsored scheme of 'Environmental Orientation to School Education' envisages development of region-specific Environmental Education training material in regional languages which could be used by the DIETs for training of primary school teachers. Five resource groups, one each in RIEs at Ajmer, Bhopal, Bhubaneswar and Mysore, and one at the NIE, New Delhi were constituted to carry out the project.

As part of capacity-building among the educational functionaries, environmental education training for the curriculum developers has been an on-going exercise in the NCERT for the last three years. The target group identified for the training is the curriculum developers from Secondary/Senior Secondary School Education Boards of States and NGOs. It is being enlarged to cover the SCERTs and other institutions. The training content aims at: (i) familiarising the participants with the recent developments in the area of Environmental Education; (ii) strategies for incorporation of environmental components in the curriculum; (iii) exposure to enlarged role and expectations of Environmental Education; and (iv) procedures and guidelines for curriculum development including evaluation with environmental dimensions.

### **Regional Level Inputs**

The RIE, Ajmer reviewed and finalised Environmental Education Training Modules for the DIETs of the Northern Region.

The RIE, Bhopal reviewed the training

materials prepared under the scheme. The RIE, Bhubaneswar brought out the final version of the training materials for DIETs of Eastern Region in Environmental Orientation to School Education. The RIE, Mysore developed material on

Environmental Orientation to School Education and initiated a Study of the Innovative Practices used in the Teaching of Environmental Science (EVS-II) in the Elementary Schools.





## Identification and Nurturance of Talent

The NCERT, under its National Talent Search (NTS) Scheme, awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the nation.

**I**N the area of talent search, the NCERT is conducting two major programmes: (i) National Talent Search, and (ii) Technical Support to Jawahar Navodaya Vidyalayas.

### National Talent Search Scheme

The NCERT, under its National Talent Search (NTS) Scheme, awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the nation.

The selection for the award under the NTS scheme is done in two stages. The first stage selection is done by the States and UTs through written examination conducted usually between October and December. On the basis of this examination, a stipulated number of candidates are recommended to the NCERT for the second level test. The second stage selection involves both written examination and an interview for the selection of the requisite number of awardees. The NCERT not only awards scholarships to these selected candidates but also organises suitable summer institutes to nurture candidates' talents with the help and cooperation of leading institutions of the country.

**Number of NTS Scholarships Awarded during 1997-98**

| S.No. | States/UTs        | Quota<br>Allotted | No. of Students<br>Appeared in<br>Second-Level Test | No. of Scholarships<br>Awarded (General) | No. of Scholarship<br>Awarded (SC/ST) |
|-------|-------------------|-------------------|---|--|---------------------------------------|
| 1.    | Andhra Pradesh    | 195               | 191   | 31                                       | 05                                    |
| 2.    | Arunachal Pradesh | 25                | 23  | —  | —                                     |
| 3.    | Assam             | 90                | 85  | 10                                       | 01                                    |
| 4.    | Bihar             | 215               | 206   | 55                                       | 06                                    |
| 5.    | Delhi             | 50                | 49  | 36                                       | —                                     |
| 6.    | Goa               | 25                | 25  | 09                                       | —                                     |
| 7.    | Gujarat           | 165               | 127   | 02                                       | —                                     |
| 8.    | Haryana           | 70                | 69  | 27                                       | 01                                    |
| 9.    | Himachal Pradesh  | 35                | 34  | 05                                       | 02                                    |





| S.No.        | States/UTs           | Quota<br>Allotted | No. of Students<br>Appeared in<br>Second-Level Test | No. of Scholarships<br>Awarded (General) | No. of Scholarship<br>Awarded (SC/ST) |
|--------------|----------------------|-------------------|---|--|---------------------------------------|
| 10.          | Jammu and Kashmir    | 25                | 25  | —  | —                                     |
|              | Karnataka            | 170               | 166   | 43                                       | 02                                    |
|              | Kerala               | 190               | 188   | 39                                       | 02                                    |
|              | Madhya Pradesh       | 130               | 125   | 29                                       | 09                                    |
| 14.          | Maharashtra          | 365               | 364   | 131                                      | 11                                    |
| 15.          | Manipur              | 25                | 24  | 01                                       | —                                     |
| 16.          | Meghalaya            | 25                | 24  | —  | 01                                    |
| 17.          | Mizoram              | 25                | 08  | —  | —                                     |
| 18.          | Nagaland             | 25                | 25  | —  | 02                                    |
| 19.          | Orissa               | 155               | 152   | 23                                       | 01                                    |
| 20.          | Punjab               | 100               | 98  | 24                                       | 03                                    |
| 21.          | Rajasthan            | 95                | 94  | 46                                       | 02                                    |
| 22.          | Sikkim               | 25                | 24  | —  | —                                     |
| 23.          | Tamil Nadu           | 245               | 242   | 47                                       | 06                                    |
| 24.          | Tripura              | 25                | 11  | 02                                       | 01                                    |
| 25.          | Uttar Pradesh        | 430               | 415   | 67                                       | 02                                    |
| 26.          | West Bengal          | 265               | 255   | 43                                       | 13                                    |
| 27.          | A & N Islands        | 10                | 08  | 01                                       | —                                     |
| 28.          | Chandigarh           | 10                | 10  | 09                                       | —                                     |
| 29.          | Dadar & Nagar Haveli | 10                | 06  | —  | —                                     |
| 30.          | Daman & Diu          | 10                | —   | —  | —                                     |
| 31.          | Lakshadweep          | 10                | 08  | —  | —                                     |
| 32.          | Pondicherry          | 10                | 10  | —  | —                                     |
| <b>Total</b> |                      | <b>3250</b>       | <b>3091</b>   | <b>680</b>                               | <b>70</b>                             |

### Total Number of Awardees Getting Scholarships during 1997-98

|                 |               |      |
|-----------------|---------------|------|
| <b>+2 Stage</b> | Class XI 750  | 1500 |
|                 | Class XII 750 |      |

#### Under-Graduate Level

|                |      |
|----------------|------|
| Basic Science  | 176  |
| Social Science | 80   |
| Engg./B.Tech   | 1732 |
| Medicine       | 668  |

#### Post-Graduate Level

|                |    |
|----------------|----|
| Basic Science  | 10 |
| Social Science | 11 |
| Engg./M.Tech   | 4  |
| Medicine       | 34 |
| Management     | 58 |
| Ph.D.          | 5  |

**Total :** 4278

#### Expenditure during 1997-98

|                                 |           |
|---------------------------------|-----------|
| 1. Disbursement of Scholarships | 80,80,787 |
| 2. Conduct of NTS Examination   | 7,74,064  |

**Total :** Rs. 88,54,851

## **Jawahar Navodaya Vidyalayas (JNVs) Selection Test**

The NCERT continued carrying out the task of selection of students for admission to Class VI of Jawahar Navodaya Vidyalayas (JNVs). The JNVs have been established to act as pace-setters for other schools in the districts and to provide quality education to bright students with the twin objectives of equity and excellence. More specifically, the scheme aims at encouraging and nurturing talent predominantly from rural and weaker sections besides promoting national integration amongst students. At present there are 383 JNVs spread all over the country.

The admission in JNVs are made on the basis of a selection test designed and evolved by the NCERT. The medium of this examination is the medium offered by candidates while studying in Class V. The tests are prepared and finalised in English and translated in regional languages. The selection test comprises of three sections, viz., Mental Ability Test—60 questions, Arithmetic Test—20 questions, and Language Test—20 questions.

At least 75% of the seats are filled from schools located in rural areas and remaining seats are filled from the urban areas. In order to encourage education of

girls, one third of total seats in a district are offered to female candidates of that district, if found eligible. There is a provision for reservation of at least 15 percent seats for SCs and 7.5 per cent seats for STs.

During the year 1997-98, only one selection test was conducted by the NCERT on 26 April 1997. The States covered for this test were Arunachal Pradesh, Assam, Bihar, Haryana, Himachal Pradesh, Jammu and Kashmir, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura, Uttar Pradesh and Delhi. A total number of 26389 candidates took this examination from all over the states; maximum number of candidates (8794) appeared from the Bihar state and the minimum number of candidates (178) appeared from Arunachal Pradesh. The number of boys was much higher (72.14) per cent compared to girl per cent (27.86). The participation of SC/ST category candidates was only 25.74 per cent despite reservation facility. However, the number of rural candidates appeared was very high. 22998 candidates out of 26389 candidates that appeared in the JNVST.

The work pertaining to preparation of the selection tests and processing of results was transferred to the Central Board of Secondary Education (CBSE), New Delhi after the conduct of JNVST in April 1997.





## Educational Research

The Fifth Survey of Educational Research covered predominantly abstracts of the Ph.D. and the M.Ed. theses of the Indian Universities covering the period from 1988 to 1992. As a prelude to the survey report, a Bibliography of Educational Research of the above survey was released to facilitate the researchers with the primary source of information about the researches. The survey covered more than 1,800 abstracts, which have been classified in 38 areas.

**P**ROMOTION of research in school education and research-based policy perspectives for qualitative improvement of school education are important concerns of the NCERT. The main functions in this area, inter alia, include: (i) developing and strengthening institutional research capacity; (ii) research-based documentation of information on education, especially school-related aspects; and (iii) providing channels of communication to reach out to the functionaries and beneficiaries related to educational research and receiving feedback on research findings and their impact on education system. Apart from the constituent units of the NCERT undertaking research, the Educational Research and Innovations Committee (ERIC), a standing committee of the NCERT, acts as a catalyst to promote and support educational research in the country.

#### **Fifth Survey of Educational Research**

The Fifth Survey of Educational Research covered predominantly abstracts of the Ph.D. and the M.Ed. theses of the Indian Universities covering the period from 1988 to 1992. As a prelude to the survey report, a Bibliography of Educational Research of the above survey was released to facilitate the researchers

with the primary source of information about the researches. The survey covered more than 1,800 abstracts, which have been classified in 38 areas. The survey document is being brought out in two volumes—the first volume, published in 1997, covers Trend Reports. The second volume covers abstracts of researches and is likely to be published soon.

#### **Sixth Survey of Educational Research**

For the Sixth Survey of Educational Research covering the period from 1993 to 1997, a new modality has been adopted to minimize the time gap between the completion of the research studies and their wider dissemination. A biannual research journal titled *Indian Educational Abstracts (IEA)* has been introduced. Four issues of this journal covering 624 studies have already been published. The manuscript of the fifth issue of IEA covering 150 studies was also prepared.

#### **ERIC-supported Research Projects**

During 1997-98, ten research projects supported by the Educational Research and Innovations Committee (ERIC), NCERT were completed. Two studies were closed and sixty studies were in progress. The details about the ERIC studies are given below.





## **Research Projects Completed during 1997-98**

### **1. Teacher Educators in Perspective: Explorations in their Social Class, Origins, World-view and Professional Productivity by Prof. V.K. Raina, NCERT, New Delhi**

The study aimed at answering the following four sets of research questions: (i) What is involved in the phenomenon of being a teacher educator? (ii) What are the social-class, origins of teacher educators? (iii) What is the world-view which characterises the teacher educators? (iv) What is the nature of scholarly activities of the teacher educators and their awareness and understanding of current research and innovations in the field of teacher education?

All the teacher educators serving in the 40 colleges of education in the State of Rajasthan—both Government as well as Private—formed the sample of this study. A set of four questionnaires were used, of which three were developed by the Principal Investigator (PI). The major findings of the study are: (i) The teacher educators' educational profile is marked by mediocrity and 'second rateness'. They are mostly people who are 'second' and 'third' divisioners rather than the first rankers; (ii) They have shown sign of greater authoritarianism, registering a significant difference with the earlier group of teacher educators; (iii) The professional productivity and research capabilities of this group of teachers/educators were found to be rather limited. The final report of the study inter alia include major sources of satisfaction, dissatisfaction. In conclusion, the general reasons for the poor professional and research productivity of the teacher educators are their low social class origins, early family and community values, and lack of intrinsic motivation. It has been suggested that adaptation of systematic measures to provide for the education of educators would have a greatly beneficial multiplier effect.

### **2. Evaluation of Curricula and Textbooks in Language and Social Sciences of Higher Secondary School Stage from the Standpoint of Peace Promotion by Dr. Susheela Bhan, Delhi**

The study was undertaken with the immediate objective of finding out the status of the peace promoting (positive) and peace jeopardising (negative) materials in the textbooks of languages and social sciences at the +2 stage as also the quality of their content. A total number of 118 textbooks from eight States and from the NCERT were evaluated under set criteria of evaluation developed by the research team at the Institute. The findings of the study revealed that the overall coverage of peace themes presents a dismal picture. The quality of peace related content included in the textbooks was not found to be up to the mark. Whatever has been included is just incidental. No systematic thinking or planning was evident. Regarding the quality of content, the position is unsatisfactory in all the four social science subjects. The PI is of the view that this study will hopefully activate the concerned authorities, teachers, curriculum construction experts and textbook writers to activise towards a relevant peace education movement.

### **3. A Study of Attitudinal Changes in Pre-Service Student Teacher Behaviour through use of Action Research Strategy by Prof. B. Dwivedi Varanasi**

The objectives of the study were: (i) to determine the extent of attitudinal changes in pre-service teachers as a result of their initiation into using action research strategies; (ii) to find out the difference in the attitude of different categories of teachers: (a) language and science and (b) social sciences, and sciences; (iii) to ascertain the differentials of attitudinal changes in pre-service teachers attributable to the variables of sex, scholastic performance and teaching experience. The sample comprised 80 students of *Shikshashastri* course of the Sampurnanand Sanskrit University admitted in 1993-94 session. The results

revealed that the pupil-teachers belonging to science group had significantly better attitude scores as compared to the language group whereas no significant difference existed between the attitudinal scores of social sciences and science group. Female student teachers and students with prior teaching experience have significantly higher mean of attitude scores than male student teachers and student teachers with no teaching experience. The PI concluded that attitudes of pre-service student teachers may be developed positively by proper initiation in the action research strategy.

**4. Development of Low-Cost Functional Assessment Kit and Studying the Relationship between Visual Acuity and Visual Efficiency of Low Vision Children by Dr. M.N.G.Mani, Coimbatore**

The objectives of the study were: (i) to make an intensive study of the areas which are important in studying the visual efficiency of low vision children and develop materials for each of the identified areas of assessment; (ii) to establish the reliability and validity of the assessment procedures; (iii) to explore relationship between visual acuity and visual efficiency of low vision children; (iv) to explore relationship between age and visual efficiency of low vision children; and (v) to study the effect of training in improving the visual efficiency of low vision children. Some of the salient findings of the study are: (i) Majority of low vision children currently in special education programmes in Tamil Nadu do not have formal visual efficiency training and most of them are Braille readers. Though programmes have aids and appliances such as magnifiers and optical aids, teacher-made assessment materials are found only in the integrated education programme. (ii) Visual acuity and visual efficiency skills of low vision children are not related. (iii) The age group plays a role in the visual efficiency skills of low vision children. (iv) The boys showed better visual efficiency skills than that of girls. (v) A strong relationship exists between 'visual efficiency training' and visual efficiency

skills. The study revealed how the low cost functional assessment kit (LOFAKT) make simple the educational training in developing the visual efficiency in low vision children. It also highlighted the need for treating these children as 'print readers' rather than 'blind learners'.

**5. Cognitive Processes, Cultural Adaptations and Education of Children of Some Tribal Groups by Dr. R.C. Mishra, Varanasi**

The present research attempted to study cognitive processes and cultural adaptations of tribal children with a view to understand some of the problems of their education. The sample consisted of 400 children of 9-12 years of age drawn from Birhor and Oraon tribal groups of Ranchi, Hazaribagh and Gumla districts in South Bihar. A number of tests, scales and schedules (both observation and interview) were used for assessment of cultural, cognitive and educational achievement dimensions. Some of the major findings of the study are: (i) Societal size progressively increased from Hunting Gathering (HG) to Wage Earning (WE) through Dry Agriculture (DA) and Irrigators Culture (IC) samples, whereas social conformity was low in the HG and WE samples, but high in the DA and IC samples, (ii) Both social and individual connectedness were relatively high in DA and IC samples than in HG and WE samples, (iii) HG and WE samples generally presented evidence of greater intra-Unit distinctiveness in cognition than DA and IC samples. (iv) Extra-unit connectedness (contextualisation) in cognition was low in the HG samples, but successively higher in DA, IC and WE samples, (v) IC, HG and DA groups showed lower levels of integration in cognition as compared to WE, (vi) On cognitive achievement measures (Language, Mathematics and Science achievement) IC and WE samples score were higher than HG or DA samples, (vii) Difference between boys and girls in test performance was less evident in HG than in other samples. However, there was some evidence for 'task specificity' with respect



of gender effect across different subsistence level groups. The case studies suggested a general realisation of the need for school education and its application by members of the settled Oraon group. On the other hand, Birhors (who still live a nomadic life) hardly perceived any advantage of education.

**6. A Study of Effectiveness of Mastery Learning Approach in Teaching Mathematics at the Secondary Level of Education in West Bengal by Dr. M.M.Chel, West Bengal**

Mastery learning is a group based, teacher paced approach where students learn with their classmates and the teachers control the teaching learning process. The study was undertaken with the objectives: (i) to verify the effectiveness of mastery learning approach in teaching mathematics at the secondary level of education in West Bengal as a remedial measure, (ii) to eliminate the trends of error in mathematics at different stages of school children and in the area of 'knowledge', 'skills', 'understanding', and 'application' domains, and (iii) to make proper use of the 'prior growth' and 'prior familiarity of mathematics ideas' of the students to bring all students to 100 per cent level of mastery in mathematics. Investigations have shown that mastery learning approach is more effective and suitable for teaching mathematics at the secondary level. The findings also revealed that mastery learning approach diminished the trends of errors in mathematics of the students of (12 to 16+) age group. This technique is workable, feasible and effective in school situation.

**7. An Evaluation of Certain Aspects of Total Literacy Programme (Akshara Thapasman) with Special Reference to the Education of Children (Age Group 9-14 years) in Chittoor District of Andhra Pradesh, by Dr. P.A.Reddy, Tirupati**

This study was formulated with the objectives: (i) to assess the standard of education received by the child participants in Akshara Thapasman Programme; (ii) to suggest appropriate entry point into the system of formal education and non-formal education programme to children

participated in Akshara Thapasman; (iii) to find out the motives of the participants for attending and reasons for dropping out from the Akshara Thapasman Centres; (iv) to study the suitability of the learning materials used in these centres for the children of age group 9-14 years; (v) to study the relationship between volunteers' attitude towards the programme and their effectiveness; (vi) to compare the achievement of the Akshara Thapasman participants with non-formal education programme participants of stages II and III with Classes III and IV children of formal school; (vii) to identify the strengths and weaknesses of this programme; (viii) to find out the influence of certain socio-economic and demographic variables of the sample on their academic achievement; and (ix) to find out the extent of the coverage of target group and reasons thereof in the selected villages. The reliability of the tools were in the range of 0.88 to 0.92 which is significant and validity of tools were also established in the form of content validity, criterion validity and intrinsic validity. The findings of the study revealed that standard of literacy achieved by TLC participants is far below the standard of literacy suggested by NLM. The TLC participating children can be admitted to the Stage II of NFE programme or Class III of formal education. The popular motives of TLC participating children and major causes for dropping out of the ATP centres are listed in the report. The opinion for the functionaries reveal that the learning materials utilised in Akshara Thapasman Programme are more relevant for the children in the age group of 9-14 years. Though volunteers' attitude is not significantly associated with their effectiveness, yet the trend reveals that the positive attitude is associated with more efficiency. In addition to above, some of the positive aspects of the programme emerged from the study and its weaknesses are also listed in the report. The findings of the study may be useful for the policy makers and young researchers.

**8. Population Socialisation among Rural High School Students, Parents, Teachers and Legislators by Dr Y.P. Aggarwal, Kurukshetra**

The study was planned to be conducted on the cross sections of populations of students, teachers, parents and legislators to assess their level of population socialization under the three components (Awareness, Attitudes and Action) and then to conduct an experiment to generate or enhance these levels. Sex-wise and income-wise comparisons were also planned. One objective common to all the groups was to develop intervention materials on Population Socialization, try them out in the field situation and see its impact on the four groups of population selected for the study. Three tests/scales (Awareness Test, Attitude Scale and Action Scale) were used for data collection from all the four groups of population. In all thirty intervention sessions with students, sixteen with teachers and eighteen with parents were held. Some of the major findings of the study are: (i) Income has emerged as an important factor in determining the level of favourableness of population attitudes among high school boys and girls. Results of the sex as a determinant of population attitude revealed a mixed trend, (ii) The intervention materials proved effective in generating more favourable population attitudes.

**9. Development and Evaluation of Child Centred Curriculum for Mentally Handicapped Children by Dr (Smt.) R. Malhotra, New Delhi**

The study was undertaken with the objectives: (i) to try out the scientific approach for identifying and assessing the special needs of mentally challenged persons; (ii) to select relevant tools and study their efficacy in the cultural environment of Indian special schools; (iii) to develop Curricular Action Plan (CAP) in a scientific manner and to design it in a manner that it has a built-in flexibility to suit any intellectually challenged person; (iv) to train teachers in the use of the developed tool; (v) to train and upgrade the manpower resources of special schools; (vi) to empower the teacher for decision

making; and (vii) to heighten the commitment level of the teachers in special schools. The Developmental version of Curricular-Action-Plan (CAP) was sent to 60 experts for their comments. Suitability of this tool for Programme Planning was rated as 'acceptable' and its efficacy for developing a child-centred and ecologically relevant curriculum has been considered as 'appropriate' for all three levels (elementary level, secondary level and vocational level). Some of the major findings of the study are: (i) CAP can be used for the functional assessment of the mentally handicapped children and adolescents with care; (ii) CAP is a good guide for planning individual educational programmes for all levels of intellectually handicapped persons; (iii) CAP can present individual profiles depicting the strengths and weaknesses of a child for future programming; (iv) CAP can provide a scientific and useful structure for keeping cumulative records of individual students; (v) CAP gives guidelines for development of a child-centred curriculum which is ecologically relevant. PI is of the opinion that using CAP as a guideline, the teachers can make necessary adjustments as and when needed to suit any special school for the intellectually disabled.

**10. Development of English Language Tests at the School Level by Dr. Rama Mathew, Hyderabad**

The study was undertaken with the objectives: (i) to devise test-tasks that capture different level(s) of proficiency in an English medium secondary school in the skill areas relevant to different English using activities of students; (ii) to validate the test-tasks through an ethnographic approach for purposes of classroom evaluation. The study has endeavoured to demonstrate a methodology for on-going formative evaluation in the classroom with teachers and students adapting a 'research approach' to testing. It is hoped that the test-tasks developed in the study as well as the evaluative procedures will stimulate teachers and students to begin to look more closely at the range of possibilities that exist for communicative evaluation.



### Research Projects Closed

| <i>Sl.No. Title of the Project</i>   | <i>Principal Investigator</i> |
|--|-------------------------------|
| 1. An Exploration into the Nature of Education as an Area of Study                                   | Prof. M.S.Yadav<br>Vadodara   |
| 2. A Study of Family Background and Perceived School Environment as Characteristics of Slow Learners | Prof. P.K.Das<br>Howrah       |

### Research Projects in Progress During 1997-98

| <i>Sl.No. Title of the Project</i>  | <i>Principal Investigator</i>            |
|---|--|
| 1. Development of a Science Technology Society (STS) Approach of Teaching Science in Middle Schools and Try-out of its Effectiveness in Selected Schools                          | Prof. A. C. Banerjee<br>RIE, Ajmer       |
| 2. An Evaluation of Ashram Schools in Madhya Pradesh  | Dr K.R.Sharma<br>RIE, Bhopal             |
| 3. Students' Pre-conceptions and Mis-conceptions in Physics at +2 Level   | Dr H.C.Jain<br>RIE, Ajmer                |
| 4. Study of Development of Classification Reasoning Using Computers   | Dr S.C.Jain<br>RIE, Ajmer                |
| 5. Comparative Study of Implementation of General Foundation Courses in Different States  | Dr D.P.Singh<br>PSSCIVE, Bhopal          |
| 6. Identification of Psycho-Social Factors Responsible for Students' Failure to Achieve Minimum Levels of Learning in Mathematics at Class IV                                     | Dr K.N.Mishra<br>RIE, Bhubaneswar        |
| 7. Establishment of School Industry Linkage in Secondary Vocational Schools: Action Research  | Dr Saurabh Prakash<br>PSSCIVE, Bhopal    |
| 8. Status Study of Vocational Pass-outs of Business and Commerce Based Vocational Courses in India  | Dr A. Palanivel<br>PSSCIVE, Bhopal       |
| 9. Career Aspirations for Girls in Urban and Rural Societies vis-a-vis Vocational Education   | Dr (Km) P.Aggarwal<br>PSSCIVE, Bhopal    |
| 10. A Study of Subjects Offered by the Institutions of Teacher Education opted by the Students, Teachers and required by the Primary and Secondary Schools in the Southern Region | Dr K.Doraswami<br>RIE, Mysore            |
| 11. Culture and Conceptualization of Intelligence   | Dr A.K.Srivastava<br>NCERT, New Delhi    |
| 12. Benchmark Survey of Vocational Guidance in States   | Dr (Smt.) K. Mathur<br>PSSCIVE, Bhopal   |
| 13. Effect of Psycho-Social Factors on Science Learning of Tribal Children of Orissa  | Dr (Smt.)M.Mohapatra<br>RIE, Bhubaneswar |

| SL.No. | Title of the Project  | Principal Investigator                |
|--------|---|---------------------------------------|
| 14.    | An Integrated Approach to Science Teaching at Elementary Level (Classes VI, VII, VIII) — Development of a Model   | Dr M.K. Satapathy<br>RIE, Bhubaneswar |
| 15.    | A Study of Factors Affecting Pupil Achievement in Primary Schools of Orissa   | Dr B.N.Panda<br>RIE, Bhubaneswar      |
| 16.    | Development of a Profile of Competencies Available and Training Design for the Teacher Educators at the Elementary Level  | Dr V.D.Bhatt<br>RIE, Mysore           |
| 17.    | Comparative Evaluation of Quality and Standard of Vocational Curricula and Instructional Materials in Selected States   | Dr N.Srivastava<br>PSSCIVE, Bhopal    |
| 18.    | Development and Standardization of Language Competency Tests in Hindi and Oriya   | Dr Tapati Dutta<br>RIE, Bhubaneswar   |
| 19.    | Psycho-Social Correlates of Career Choice among High School Students  | Dr G. Mohan Kumar<br>Bangalore        |
| 20.    | Evaluation of the Working and Management of Navodaya Vidyalayas in North-Eastern Region of India  | Dr P.P.Gokulnathan<br>Shillong        |
| 21.    | Assessment and Influence of Special Education Needs   | Dr (Smt) C.Pandian<br>Madras          |
| 22.    | Behavioural Analysis and Modification of Parent Training Techniques Involved in Improving Study and Homework Behaviours of Their Academically Backward Children                         | Dr S.S.Kaushik<br>Varanasi            |
| 23.    | A Study of Scientific Temperament among Junior High School Students in Varanasi   | Prof. V.K.Dubey<br>Varanasi           |
| 24.    | Innovative Institutions and Their Programmes for Professional Development of School Teachers in India   | Prof. Mohd. Miyan<br>New Delhi        |
| 25.    | A Study of the Impact of Key Institutional and Instructional Variables on Training Outcomes in College of Education   | Dr Arun K.Gupta<br>Jammu              |
| 26.    | Construction and Standardization of Tactile Test of Intelligence (verbal and non-verbal) suitable for Visually Disabled Children of 11 to 19 Years of Age                               | Dr Sunita Sharma<br>Aligarh           |
| 27.    | Integrated System of Education in Bihar—A Study of Adjustment of Handicapped Students   | Dr Shashi Prabha<br>Patna             |
| 28.    | Drug Abuse in Male Adolescents in Senior Secondary Schools and Application of Certain Intervention Techniques to Prevent Drug Addiction by modifying their Temperamental Susceptibility | Dr (Smt) S.Banerjee<br>Varanasi       |



| <i>Sl.No.</i> | <i>Title of the Project</i>  | <i>Principal Investigator</i>      |
|---------------|--|------------------------------------|
| 29.           | Role of Performance of Special Education Teachers  | Dr G.L.Reddy<br>Karaikudi          |
| 30.           | Reducing Burnout in Women Teachers   | Dr (Smt) N.Mishra<br>Lucknow       |
| 31.           | A Comparative Study of the Personality Patterns and Academic Achievement of SC and ST Students and Non SC/ST Students in Ashram Schools and Non-Ashram Schools in Orissa | Dr B.C.Mishra<br>Orissa            |
| 32.           | Development of Concepts Relating to Measurement among Visually Impaired Children   | Dr Debjani Sengupta<br>Calcutta    |
| 33.           | Effectiveness of the Local Resources in Biology Education at the Secondary Level in Uttar Pradesh  | Dr G.S.Paliwal<br>Garhwal (UP)     |
| 34.           | Strategies to Develop Reading Skills in Hearing Impaired Children at High School Level   | Dr P.Vimla Devi<br>Tirupati        |
| 35.           | Teacher Expectations in Indian Schools, their Effect on Teaching Process and Student Outcomes  | Dr N.C.Dhoundiyal<br>Almora (UP)   |
| 36.           | Development of a Career Maturity Inventory for Use with Female College/University Students   | Dr (Smt.) A.Shukla<br>Lucknow      |
| 37.           | A Study of Feasibility of Involvement of Female Health Personnel in Women's Education Programme in Rural Community   | Dr (Smt.) P.Mathur<br>Delhi        |
| 38.           | Influence of Home Environment on Cognitive Development of Children in Age Group 6-8 Years  | Dr Sudha Bhogle<br>Bangalore       |
| 39.           | Impact of Job Experience on Burnout Syndrome in Teachers   | Dr Uma Rangan<br>Hyderabad         |
| 40.           | Interdisciplinary Approach to Experimental Learning in Primary Classes   | Smt K. Rajalaxmi<br>Tadapalliguden |
| 41.           | Navachar Shikshan Samagri Ka Anopcharik Shiksha Ki Pragati Par Prabhava .  | Dr N.P.Narain<br>Patna             |
| 42.           | Hand and Task Training Requirement for Blind Children  | Dr M.Ittyerah<br>Delhi             |
| 43.           | A Study on Functioning of Ashram Schools in Tribal Areas of Andhra Pradesh and Maharashtra   | Dr P.S. Reddy<br>Tirupati          |
| 44.           | Evaluation of Early Childhood Teacher Education Programmes and Suggesting Perspectives   | Dr S.P.Malhotra<br>Kurukshetra     |
| 45.           | Investigation of Meta—Representational Language in Oriya: Its Linguistic, Cognitive and Educational Implications   | Dr Nandita Babu<br>Bhubaneswar     |

| Sl.No. | Title of the Project   | Principal Investigator               |
|--------|--|--------------------------------------|
| 46.    | Reading Disabilities and Cognitive Information Processing Among Primary Level Children   | Dr M.K.Pani<br>Orissa                |
| 47.    | A Study of the Impact of an Integrated Intervention of Scholastic Performance of School Children   | Dr (Km) I. Mahapatra<br>New Delhi    |
| 48.    | Assessment of Learners' Scholastic Achievement by Board Examination and Socio-Textonomy→A Comparative Study  | Dr Ranjit Basu<br>Calcutta           |
| 49.    | Development of Teaching Methodology in Mathematics Based on Identification of Mathematical Concepts from Indigenous Society  | Dr N.C.Ghosh<br>Calcutta             |
| 50.    | Development of Effective Models of Demonstrative Teaching of Selected Physics Concepts in Rural Areas  | Dr G.S.Roy<br>Cuttack                |
| 51.    | Special Needs of the Children with Hearing Disability in Elementary Schools  | Dr S.C.Behra<br>Balasore             |
| 52.    | A Critical Study of Family Problems Faced by the Learners, Socio-Economic Status, Physical Facilities available in Literacy Centres, Organizational and Instructional Aspects of Literacy Programme and their Relation with Literacy Achievement of Female Learners in West Bengal | Dr S.Chakraborti<br>Calcutta         |
| 53.    | Problems of Children Education among the Chenchu Primitive Tribal Group in Andhra Pradesh  | Dr G.Eswaralah<br>Distt. Ranga Reddy |
| 54.    | Effectiveness of Computer Assisted Language Learning and Testing in the Context of Learning English as a Second Language at Standard VIII  | Dr N.Balasubramanian<br>Coimbatore   |
| 55.    | An Attempt to Prepare Teaching-Learning Materials on Physical and Life Science for Visually Impaired Students  | Dr Debasish Paul<br>West Bengal      |
| 56.    | Teaching Strategies, Teacher Improvement and School Achievement  | Dr (Km) B.S.Reddy<br>Hyderabad       |
| 57.    | Development of Problem Solving Abilities in Physics through Information Processing Approach  | Dr S.Mohan<br>Karaikudi              |
| 58.    | Comparison of Various Remedial Strategies in Reducing Language Disabilities of Dyslexic Children   | Dr(Mrs.) Tehal Kohli<br>Chandigarh   |
| 69.    | Relationship Between Vocational Aspirations, Values and Socio-Economic Status of Tribal and Non-Tribal Adolescents   | Smt S.Kumawat<br>Udaipur             |
| 60.    | Impact of Incentive Schemes on Girl Child in Uttar Pradesh with Special Reference to Universalization of Elementary Education  | Dr G.D.Bhatt<br>Delhi                |



### Publication Grants

#### Ph.D. Theses Published with the Partial Assistance from the ERIC, NCERT

| Sl.No. | Title   | Name of the Author               |
|--------|---|----------------------------------|
| 1.     | Cost Effectiveness of Training Modalities in Population Education                       | Dr (Smt)S.B.Yadav<br>NCERT       |
| 2.     | Efficient School Management and Role of Principals                                      | Dr (Km.) Alka Kalra<br>New Delhi |
| 3.     | Effect of School Background on Creativity, Anxiety and Self-Perception—A Factoral Study | Dr T.K.Sharma<br>Jaipur          |
| 4.     | Cognitive Development and Achievement of School Students in Science                     | Dr S.N.Tripathi<br>Gorakhpur     |
| 5.     | Mathematics Learning and Temperament  | Dr Veena Deshmukh<br>Mumbai      |
| 6.     | Achievement in Science  | Dr Poonam Chauhan<br>Aligarh     |
| 7.     | Verbal Ability and Achievement of School Children                                       | Dr Tarun Lata<br>Badaun          |

### Publication Grants Sanctioned for Ph.D. Theses

| Sl.No. | Title   | Name of the Author                |
|--------|---|-----------------------------------|
| 1.     | Educational Needs Relevant Curriculum and Rehabilitational Expectations of Handicapped Children | Dr (Smt)Seema Singh<br>Varanasi   |
| 2.     | A Study of Conservation of School Children in Chhattisgarh Region                               | Dr (Smt) P.Shukla<br>Chhattisgarh |
| 3.     | A Study in the Reconstruction of the Value System of Existing Indian Education                  | Dr Sompal Sharma<br>Delhi         |
| 4.     | Influence of Material Employment on Children's Personality                                      | Dr (Smt)Kiran Mathur<br>Bhopal    |

#### ERIC Meetings and Seminar

The Educational Research and Innovations Committee (ERIC), a standing committee of the NCERT, is responsible for initiating and supporting research in priority areas of school education and teacher education. The basic purpose of supporting research is to help improving quality of education in different kinds of school settings, providing data for policy and programme formulation, assisting in the evaluation of approaches which increase access to

education and make it more relevant and meaningful. The ERIC members include eminent researchers in education and allied disciplines from universities and research institutions, and representatives of the SIEs/SCERTs, etc. The committee worked for promotion and coordination of research in all branches of school education and teacher education. Apart from the constituent units of the NCERT undertaking research, the ERIC supported educational research by providing financial

assistance to outside organisations. The following meetings/seminars were organised during the year:

- ❑ The 30th ERIC meeting was held on 29 December 1997 to review policy matters and to consider research proposals for financial assistance and other matters related to research.
- ❑ The Fourth Researchers Seminar to monitor the progress of ERIC-funded projects was held from 2 to 4 July 1997 at the NCERT, New Delhi.
- ❑ The Expert Group Meeting to scrutinize fresh research proposals received for financial assistance was held from 24 to 26 September 1997 at RIE, Ajmer.

### Research Journals

The NCERT brings out three journals of Educational Research, namely (i) *Journal of Indian Education (JIE)*, (ii) *Bhartiya Adhunik Shiksha (BAS)* and (iii) *Indian Educational Review (IER)*. The *Journal of Indian Education* and the *Bhartiya Adhunik Shiksha* are quarterly journals in English and Hindi respectively. The main purpose of both the journals is to provide an open forum for fruitful and continued interaction among teachers, teacher educators, educational administrators and research workers through presentation of innovative ideas. By keeping its readers abreast of the latest advances in education, these journals promote fresh thinking in all aspects of school education. The *Indian Educational Review* includes research papers which are previewed. During 1997-98, the following issues of Journals have been brought out.

|             |         |                |
|-------------|---------|----------------|
| <b>JIE:</b> | Vol. 22 | Nos. 2,3,and 4 |
|             | Vol. 23 | Nos. 1 and 2   |
| <b>BAS:</b> | Vol. 14 | Nos.2,3,and 4  |
|             | Vol. 15 | No.1           |
| <b>IER:</b> | Vol. 32 | No. 1 and No.2 |

### Sixth All India Educational Survey

The Sixth All India Educational Survey (AIES) was launched in 1993 jointly by the NCERT and NIC in collaboration with the State Governments and Union Territory administrations with reference date as 30 September 1993. The progress of the survey is monitored by a Steering Committee headed by the Union Education Secretary and the Advisory Committee responsible for academic input and technical guidance. The Sixth AIES used satellite-based computer communication network, called NICNET, for monitoring the progress of the survey from district to state and state to national level. This facility has also been used for efficient data processing, tabulation of data and dissemination of information. Besides this, the survey has also used sample as well as census modes in data collection. The following activities under the Sixth All India Educational Survey were completed during 1997-98:

- (i) Publication and dissemination of the report 'Sixth AIES National Tables-Volume I' titled 'Educational Facilities in Rural and Urban Areas', based on national tables of Village Information Form (VIF) and Urban Information Form (UIF).
- (ii) Finalisation of four volumes of the National Tables on Schools and Physical Facilities, Teachers in Schools; Enrolment in Schools; Educational Input and Facilities in Secondary and Higher Secondary Schools based on the national tabulation of the schedule School Information Form-1 (SIF-1) and College Information Form (CIF) canvassed on census basis during the Sixth AIES. These Volumes are at different stages of publication.
- (iii) Finalisation of the tabulation of School Information Form-2 for all the States.
- (iv) Finalisation of the tabulation of



Teacher Information Form (TIF) for all the States.

- (v) Finalisation of the national concise report titled 'Selected Statistics'.

The All India Educational Survey is an on-going programme. Major tasks to be accomplished during 1998-99 are:

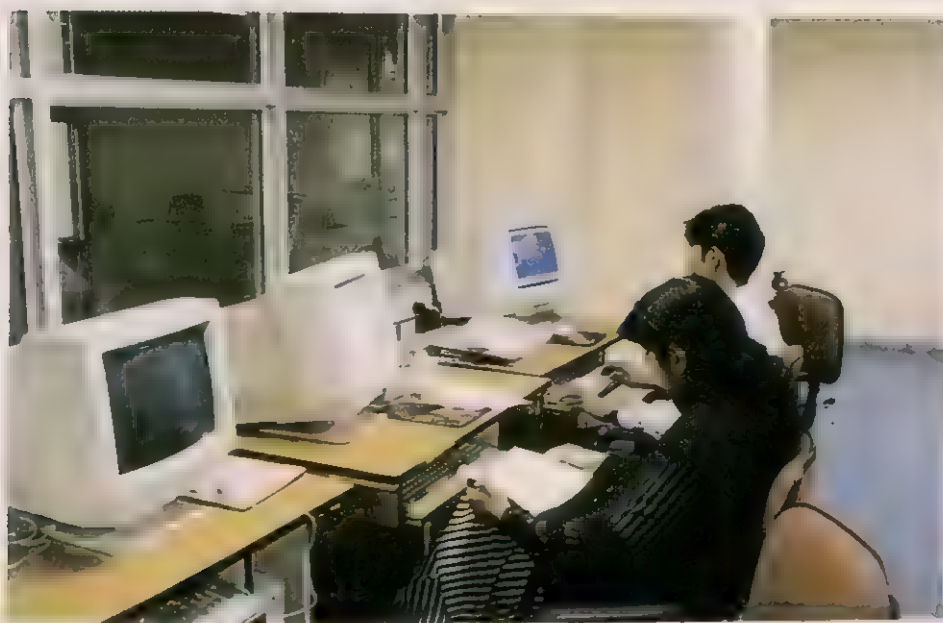
- (i) Finalisation of SIF-2 national tabulation
- (ii) Finalisation of TIF national tabulation
- (iii) Writing, finalisation and publication of main report based on all the schedules of the Sixth AIES.

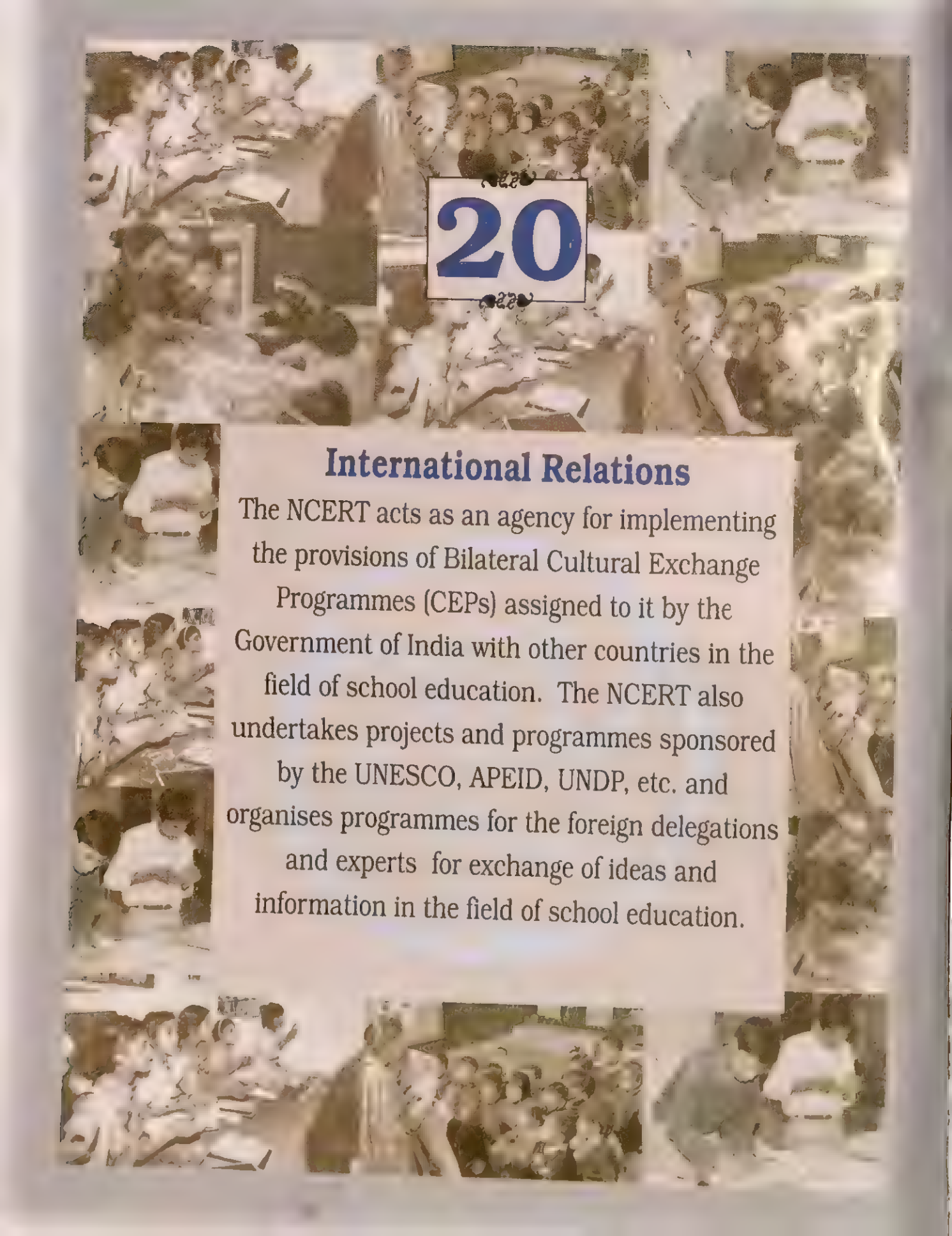
### **Computer Resource Centre**

The Computer Resource Centre at the NCERT headquarters provides centralised facilities for statistical analysis of the

projects of the constituents of the NCERT. The activities of this Centre during 1997-98 include:

- (i) Processing of NTS results of 1997 for the Department of Measurement and Evaluation.
- (ii) Data Entry for preparation of Data Base for the Library of the NCERT.
- (iii) A training programme 'Foundation Course in Research Methods using SPSS' for the faculty of the NCERT was conducted from 17 November to 5 December 1997. Seventeen academic staff of the NIE and RIEs were trained.
- (iv) A workshop of two weeks from 23 March 1998 onwards for 'Analysis of Baseline Survey Data of DPEP' was organised. Fifteen faculty members attended the Workshop.





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## **International Relations**

The NCERT acts as an agency for implementing the provisions of Bilateral Cultural Exchange Programmes (CEPs) assigned to it by the Government of India with other countries in the field of school education. The NCERT also undertakes projects and programmes sponsored by the UNESCO, APEID, UNDP, etc. and organises programmes for the foreign delegations and experts for exchange of ideas and information in the field of school education.



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### **Bilateral Cultural Exchange Programmes**

Under the Bilateral Cultural Exchange Programmes executed by the Government of India with different countries, educational materials/information were supplied to the Governments of Mauritius, Cuba, Finland, Turkey, Sudan, China and the Federal Republic of Germany.

Educational reports, materials, documents, etc. in the area of school education were received from the Governments of Turkey and the Federal Republic of Germany. The materials received under CEPs are displayed in the International Resource Centre located in the Division of Library, Documentation and Information (DLDI), NCERT.

### **Foreign Visitors to the NCERT**

During 1997-98, the NCERT received the following educationists/experts/delegations from different countries:

- ❑ A team of ten educationists from South Africa consisting of curriculum experts, finance experts and administrators involved in the in-service training of primary science teachers visited NCERT from 17 to 18 August 1997 under the leadership of Dr. Peter Grover, National Manager, Primary Science Programme and interacted with the faculty of the NCERT.
- ❑ H.E. Minister of Education of Chad, Mr. Abderahim Bireme Hamid, and the Director of Education, Mr. Ali Adam Abdarrahan Abiad visited the NCERT on 22 September 1997 and



had discussions with the faculty of the NCERT.

- Under the ITEC Programme, as per request of the Government of Maldives, the NCERT organised a 15-month diploma programme for 16 Head Teachers from Maldives in the Regional Institute of Education, Mysore from 2 September 1996 to 5 December 1997. The course design included all aspects of elementary education with special emphasis on educational management and special training in the area of basic language skills.
- A 14-member delegation of the Nedderud Vidergaenda, Skole of Norway visited the Regional Institute of Education, Bhubaneswar from 3 to 9 January 1998, under UNESCO/ASP School Exchange Programme and had interactions with faculty members and students of the Institute. The delegation also visited the NCERT Headquarters on 15 January 1998 for exchange of ideas and information.
- An Australian delegation visited the NCERT on 12 January 1998. The members of the delegation exchanged their experiences in the field of school education and the use of information technology, etc. with the senior faculty of the NCERT.
- A five-member delegation from Bangladesh visited the NCERT on 5 December 1997 and had discussions with the NCERT faculty mainly on the matters related to primary education.
- A study visit of 14-member delegation from the Department of Education, Bangladesh under the leadership of Shri. Gopal Chandra Sen, Chief of Planning, Ministry of Education, Bangladesh was organised by the NCERT from 23 November 1997 to 31 January 1998. The team also visited

the Indian Institute of Management, Bangalore, the Mysore Composite Junior College at Mandya, the Regional Institute of Education (NCERT), Mysore and the Field Office, NCERT at Calcutta, the Science City and International Book Fair, Calcutta, the KVS, Calcutta and several teachers training institutes. The team discussed various dimensions of institutional planning and evaluation and leadership skills for educational management.

- A group of educational officers from developing countries who were under training in Educational Planning and Administration in the National Institute of Educational Planning and Administration (NIEPA) visited the NCERT on 27 February 1998 and held discussions/interactions with faculty.
- Eight officials from the Directorate of Secondary and Higher Education, Ministry of Education, Bangladesh visited the NCERT on a study visit concerned with Female Secondary School Assistance Project undertaken by the Government of Bangladesh.
- A study visit of eight-member delegation from the Department of Education, Culture and Sports, Republic of Philippines was organised by the NCERT from 31 October to 7 November 1997 under the support programme for Universalisation of Quality Primary Education (UQPE) through strengthening Multigrade Teaching in Philippines Education. The delegation discussed with the NCERT faculty various issues and problems of multigrade teaching of their country. The team also visited the Rishi Valley Satellite Schools, Chittor (Andhra Pradesh) and schools of Deepalaya and Swati (NGO), Delhi where multigrade situation exists.



- A group of senior level officers from Gauting, North Province, South Africa visited the NCERT on 7 November 1997 and had discussions with the NCERT faculty on matters related to primary education, particularly the Minimum Levels of Learning (MLLs).
- A delegation of 17 teacher educators from Asian countries visited the NCERT on 6 August 1997 to familiarise with the activities of the Central Institute of Educational Technology (CIET).
- An eight-member delegation under the leadership of Additional Secretary (Education), Bangladesh, visited the NCERT on 8 July 1997 and shared experiences in Population and Development Education in Schools.
- Mr Senam Phuntsho, Division of Health Service and Mr Zin Zin, Education Division of Royal Government of Bhutan, visited the NCERT from 8 to 17 June 1997 to share and learn from each other experiences on Adolescents Reproductive Health and Problems. Discussion, lectures, viewing of video film on adolescents reproductive health were organised. Cocurricular activities were observed in a school and Teacher training in Adolescence Education was observed in the DIETs.
- A team of six educational personnel of Female Secondary Schools Assistance Project of Bangladesh visited the NCERT from 28 October to 3 November 1997 and exchanged ideas and experiences with the faculty of the NCERT.
- Mr John Elkins and Dr Deborah, Director of International Projects and Lecturer, University of Queensland, Australia visited the NCERT during February 1998 and held discussions on matters related to the Integrated

Education of Children with Special Needs in India.

- Mr. Ralph W. Harbisons, Select Manager, Education Cluster, World Bank, Washington visited the Regional Institute of Education, Mysore (NCERT) on 26 December 1997 to discuss matters related to the District Primary Education Programme (DPEP).
- Twenty seven overseas teachers from 12 countries, attending a programme at TTTI Extension Centre, Bangalore, visited the Regional Institute of Education, Mysore (NCERT) on 16 November 1997. They were apprised of the role and functions of the NCERT in the field of school education.

#### **Participation of NCERT Faculty Members in International Programmes**

- Prof. A.K.Sharma, Director, NCERT, led an Indian team to Johannesburg, South Africa from 23 to 27 June 1997 in the context of President's Education Initiative (PEI) for transformation of the South African Educational System. Dr. V.K.Raina, Professor, DTEE also participated as a member of the Indian team.
- Prof. A.K.Sharma, Director, NCERT participated in the APEID Regional Meeting on the Study of Curriculum in Asia and Pacific Region at the NIER, Tokyo, Japan from 10 to 21 November 1997.
- Prof. A.N.Maheshwari, Joint Director, NCERT participated in the 1997 APEID International Seminar on 'Innovation and Reform in Teacher Education for the 21st Century in Asia-Pacific Region', and 'Teacher Education for the Effective use of New Information Media in Schools', at Higashi Hiroshima City, Japan from 24 September to 3 October 1997.

- ❑ Prof. A.N.Maheshwari, Joint Director, NCERT participated in the UNESCO International Conference on Education for the 21st Century in the Asia-Pacific Region at Melbourne, Australia from 30 March to 3 April 1998.
- ❑ Prof. Arun K. Mishra, Joint Director, PSSCIVE, Bhopal participated in the UNESCO Conference on 'Vocational Education in the Asia-Pacific Region in the 21st Century' at Adelaide, Australia from 25 to 27 March 1998.
- ❑ Prof. Arun K. Mishra, Joint Director, PSSCIVE, Bhopal participated in the UNESCO Conference on Learning the Treasure Within' at Melbourne, Australia from 30 March to 2 April 1998.
- ❑ Dr. A.K.Sacheti, Professor, PSSCIVE participated in UNEVOC Expert Group Meeting on 'Policy Issues in the Development of TVET relevant to the Needs of Rapidly Transforming Agrarian Economies and Rural Development' at Baoding, China from 16 to 21 April 1997. He presented a country paper titled 'Role of TVET in Agriculture and Rural Development: An Indian Perspective' and participated in formulation of guidelines for policy issues concerning development of TVET relevant to rural development.
- ❑ Dr D.K.Vaid, Professor and Dr V.K.Jain, Lecturer, PSSCIVE, Bhopal visited technical and vocational institutions in Philippines, Korea and Thailand from 19 to 28 November 1997 to study the Vocational Qualification System under Mobile Training Team on TVET.
- ❑ Dr. V.S.Mehrotra, Lecturer, PSSCIVE, Bhopal participated in the UNEVOC Clearing House and Electronic Network Workshop at Bandung, Indonesia from 22 to 26 July 1997.
- ❑ Dr R.L.Phutela, Reader, CIET participated in the World Bank/ International Council of Distance Education Conference from 29 May to 11 June 1997 at State College Pennsylvania University, USA. He presented a paper on Indian experiments in Teleconferencing.
- ❑ Prof. Arjun Dev, Head, DESSH conducted a course on India for Hindi teachers of Tashkent at the invitation of ICCR at Uzbekistan from 1-10 June 1997. He taught Indian history, constitution, polity, economy and contemporary problems.
- ❑ Dr J.L.Pandy, Project Coordinator, NPEP participated in the Training Workshop on Strategic Communications and Advocacy for Adolescent's. Reproductive Health organised by Johns Hopkins University, Ballimore, USA from 15 September to 3 October 1997.
- ❑ Dr (Smt) Saroj Bala Yadav, Reader visited Vietnam and China on a 'Inter country study visit' funded by UNFPA to share experiences in Population Education from 18-28 March 1998.
- ❑ Prof. Ved Pradash, Head, DPEP Core Resource Group, attended a 5-week Workshop on Educational Policy Analysis and Planning, organised by the HIIID, from 15 June to 18 July 1997 at Massachusetts, USA.
- ❑ Shri C.D.Tamboli, Reader, DEGSN (NIE) visited Sao Paulo, Brazil to participate in 10th World Conference of International Council of Education of People with Visual Impairment (ICEVI). He presented a paper on 'Education of People with Disabilities in India-Issues in relation to Manpower Development'.



Dr B.Phalachandra, Reader, DTEE attended 18th ICDE Conference at Penn State, USA from 2-6 June 1997.

Dr Swarna Gupta, Reader, DPSEE visited New Zealand and Australia from 9-14 November and 15-21 November 1997, respectively on a study visit under Primary Education Enhancement Project.

Dr D.K. Bhattacharjee, Principal, Regional Institute of Education, Bhubaneswar participated in Inter-Regional Consultation Meeting on Education in the Federal State, Khartoum, as a nominee of the Government of India as per Indian National Commission for cooperation with the UNESCO from 23-26 February 1998. He presented a paper entitled 'The Quest for Quality Education in India' and also delivered a lecture on Financing and Planning Techniques in Education.

Shri G.S.Hati, Reader, RIE, Bhubaneswar attended the Asia Pacific Network for International Education and Value Education (APNIEVE) Expert Group meeting held at IKIP, Bandung, Indonesia from 27-30 April 1997 on Value Education for finalisation of the Source Book on 'Learning to live together in Peace and Harmony'. He presented lesson Plans on Peace, Democracy, Human Rights and Sustainable Development.

Dr T.J.Vidyapati, Reader and Team Leader, Shri R.C. Mohapatra, Headmaster and Dr (Smt)

J.Mohapatra, Senior Lecturer, RIE, Bhubaneswar along with four students of the Institute-attached DM School visited Neddrud Sixth Form College of Norway from 15 to 27 October 1997 under the UNESCO/ASP Cultural Exchange Programme.

Prof. S.N. Prasad, Principal and Dr V.V. Anand, Reader, Regional Institute of Education, Mysore organised and conducted a Workshop in Methodology of Teaching Science subjects for the teachers of Indian Schools at Muscat from 8-18 September 1997.

Prof. K.K. Vasishtha, Head, Department of Education, RIE, Mysore worked as Research Methods Specialist for the Bangladesh Higher Secondary Education Project financed by UNDP/ADB from 23 May to 18 November 1997. He completed eight research studies in his capacity as International Consultant.

Dr V. Madho Suresh, Lecturer in Geography, RIE, Mysore participated in the 7th International Conference on Lakes Conservation and Management held at Buenos Aires Argentina during October 1997. He presented his paper on 'Bio-diversity of phytoplankton (micro-algae) in punabut lake in Tamil Nadu, India'.

Dr B.S. Subhadra, T.G.T in DM School of RIE, Mysore visited Japan on a study tour for Secondary School educators from 11 to 25 June 1997. The study tour provided a good exposure of the Japanese system of education.





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## Promoting the Use of Hindi

The focus of the activities remained on promotion of the use of Hindi in the administrative and academic work of the NCERT and providing training facilities. For this purpose, the Hindi Cell, NCERT developed conceptual literature, organised training programmes for the personnel of the NCERT, developed future plans, monitored the progress of the use of Hindi in the constituents of the NCERT and evaluated the achievements periodically.



**S**EVERAL steps were taken up by the NCERT for progressive use of Hindi as the official language. The Hindi Cell of the NCERT took several measures to ensure compliance of the orders, instructions and official language rules issued from time to time by the Department of Official Languages, Ministry of Home Affairs, Government of India. The focus of the activities remained on promotion of the use of Hindi in the administrative and academic work of the NCERT and providing training facilities. For this purpose, the Hindi Cell, NCERT developed conceptual literature, organised training programmes for the personnel of the NCERT, developed future plans, monitored the progress of the use of Hindi in the constituents of the NCERT and evaluated the achievements periodically. Highlights of the programmes for promotion of the use of Hindi are given below.

#### **Literature for Promoting the Use of Hindi**

To promote the progressive use of Hindi in day-to-day working, the Hindi Cell has produced/distributed relevant literature. A booklet titled *Hindi Prayog Sahayika* (Part-I and II) was developed and distributed to the NCERT constituents and staff. A folder containing official language policy, rules

and regulations, duties and responsibilities of officials pertaining to the official language and certain other useful information is being developed for use by the officials of the NCERT.

The need for Hindi translation of some notes, sentences and general administrative English terms has been felt for quite some time. In this context, the Hindi Cell has prepared about 57 exemplar bilingual short notes/sentences and 100 words which have been printed inside the file covers to facilitate the use of Hindi by the officials.

The Hindi Cell has purchased literature and dictionaries etc. helpful in translation work. The Cell distributed Father Bulke's 'English-Hindi Dictionary' to all the constituents of the NCERT.

#### **Meetings**

For maximising the progressive use of Hindi and to take stock of progress about implementation of the official language, three meetings of the Official Language Implementation Committee of the NCERT were held during 1997-98.

#### **Hindi Fortnight**

A Hindi Fortnight was organised from



1-15 September 1997. During this fortnight, the following competitions were organised:

- Hindi Noting and Drafting Competition
- Hindi Essay Writing Competition
- Hindi Typing Competition
- Hindi Shorthand Competition
- Hindi Translation Competition
- Hindi Poetry Competition

Out of the 78 Officers/Officials who participated in these competitions, 32 were declared winners. Cash prizes of Rs400, Rs 300 and Rs 200 were given to the awardees who got first, second and third prizes respectively. During the Hindi Fortnight, posters and charts for promoting the use of Hindi were procured from the Official Language Department and supplied to the constituents/departments/sections in the NCERT. The Regional Institutes of Education also celebrated Hindi Weeks and organised several competitions and programmes for the promotion of Hindi.

### **Hindi Book Fair**

In order to provide information about the scientific and technical literature available in Hindi, the Hindi Cell, NCERT organised an exhibition of Hindi books from 11-12 September 1997 involving famous Hindi Publishers, the Commission for Scientific and Technical Terminology, the Central Hindi Directorate, the National Book Trust, India, the Children Book Trust, and the Central Secretariat Hindi Parishad. Besides the officials of the NCERT, officials from several other institutions/organisations were benefitted by this programme.

### **Orientation and Training Workshops**

Hindi Workshops were organised from 21 to 23 October 1997 at the NCERT Headquarters and at the RIE, Mysore to promote the use of Hindi. In these workshops, Official Language's rules were

introduced and practical exercises in noting and drafting, letter writing, translation etc., were carried out. The English-Hindi Administrative Terminology was also provided to the participants.

### **Training Programmes in Hindi Typing and Stenography**

Eight officials from different sections of the NCERT underwent training in Hindi typing from 1 August 1997 to 31 January 1998. Besides these, seven other officials have been receiving reinforcement training in Hindi stenography. These 15 officials appeared in the typing and stenography examination conducted by the Official Language Department.

### **Translation Work**

The Hindi Cell continued providing assistance in translating administrative documents and papers received from the Constituents/Departments/Sections of the NCERT. The work regarding Hindi translation of all documents under Official Language Act's Section 3(3) like Office Memoranda, Circulars, Advertisements, Press Releases, Office Orders, Administrative and other Reports etc., was also undertaken.

### **Monitoring of Implementation**

Besides quarterly progress reports, monitoring of implementation of the use of Hindi was undertaken in some Departments/Sections of the NCERT. During monitoring of implementation of the use of Hindi in the Publication Division, the Campus and Welfare Section, the Establishment and Coordination Section and the Regional Institute of Education, Mysore, several suggestions were given and difficulties were removed. The Director (Official Language), MHRD reviewed the progress of use of Hindi at the NCERT Headquarters and expressed satisfaction on implementation of the official language in the organisation.





# Appendices

**The NCERT Committees for the Year 1997-98**

- ☐ General Body
- ☐ Executive Committee
- ☐ Finance Committee
- ☐ Establishment Committee
- ☐ Building and Works Committee
- ☐ Programme Advisory Committee
- ☐ Educational Research and Innovations Committee
- ☐ Academic Committee of NIE
- ☐ Institute Advisory Board of CIET
- ☐ Institute Advisory Board of PSSCIVE
- ☐ Managing Committee of RIE, Ajmer
- ☐ Managing Committee of RIE, Bhopal
- ☐ Managing Committee of RIE, Bhubaneswar
- ☐ Managing Committee of RIE, Mysore
- ☐ Departmental Advisory Boards (DABs) of NIE Departments
- ☐ Official Language Implementation Committee





## General Body

- |   |   |
|---|---|
| <p>I. The Minister of Human Resource Development President <i>ex-officio</i></p>  | <p>1. (i) Shri. S.R. Bommai<br/>Union Minister for Human Resource Development<br/>Ministry of Human Resource Development<br/>Shastri Bhavan<br/>New Delhi 110 001<br/>(up to 19.3.1998)</p>   |
|   | <p>(ii) Dr Murli Manohar Joshi<br/>Union Minister for Human Resource Development<br/>Ministry of Human Resource Development<br/>Shastri Bhavan<br/>New Delhi 110 001<br/>(from 21.3.1998)</p> |
| <p>II. Chairman of the University Grants Commission <i>ex-officio</i></p>   | <p>2. Prof. (Km.) Armaity Desai<br/>Chairperson<br/>Commission<br/>University Grants Bahadur Shah Zafar Marg<br/>New Delhi 110 002</p>  |
| <p>III. Secretary to the Ministry of Human Resource Development (Department of Education) <i>ex-officio</i></p>   | <p>3. Shri.P.R.Dasgupta<br/>Secretary to the Government of India<br/>Ministry of Human Resource Development<br/>Department of Education<br/>Shastri Bhavan<br/>New Delhi 110 001</p>          |
| <p>IV. Four Vice-Chancellors of Universities, one from each region, nominated by the Government of India</p>  | <p>4. Prof. K.M.Pathak<br/>Vice-Chancellor<br/>Tezpur University<br/>Tezpur, Sonitpur<br/>Assam 784 001</p>   |
|   | <p>5. Smt. Padma Ramachandran<br/>Vice-Chancellor<br/>The Maharaja Sayajirao<br/>University of Baroda, Vadodara<br/>Gujarat 390 002</p>   |
|   | <p>6. Prof.C.L. Kundu<br/>Vice-Chancellor<br/>Himachal Pradesh University<br/>Summer Hill<br/>Shimla 171 005</p>  |
|   | <p>7. Prof. R. Ramamoorthy<br/>Vice-Chancellor<br/>Sri Venkateswara University<br/>Tirupati 517 502<br/>Andhra Pradesh</p>  |
| <p>V. One representative of each State Government and Union Territory with a legislature who shall be the Education Minister of the State/Union Territory (or his representative)</p> | <p>8. Minister for School Education<br/>Government of Andhra Pradesh<br/>A.P. Secretariat Building<br/>Hyderabad 500 022</p>  |

9. Minister for School Education  
Government of Arunachal Pradesh  
Itanagar 791 111
10. Minister for School Education  
Government of Assam  
Janata Bhawan, Dispur  
Assam 781 006
11. Minister for School Education  
Government of Bihar  
New Secretariat Building  
Patna 800 015
12. Minister for School Education  
Government of Goa  
Goa Secretariat  
Panaji 403 001
13. Minister for School Education  
Government of Gujarat  
Block No. 1, Sachivalaya  
Gandhi Nagar 382 010
14. Minister for School Education  
Government of Haryana  
Haryana Civil Secretariat  
Chandigarh 160 001
15. Minister for School Education  
Government of Himachal Pradesh  
Shimla 171 002
16. Minister for School Education  
Government of Jammu & Kashmir  
Srinagar 180 001
17. Minister for School Education  
Government of Karnataka  
Vidhan Soudha  
Bangalore 560 001
18. Minister for School Education  
Government of Kerala  
Ashoka Nanthencode  
Thiruvananthapuram 695 001
19. Minister for School Education  
Government of Madhya Pradesh  
Bhopal 462 001
20. Minister for School Education  
Government of Maharashtra  
Mantralya Main, Mumbai 400 032
21. Minister for School Education  
Government of Manipur  
Manipur Secretariat  
Imphal 795 001
22. Minister for School Education  
Government of Meghalaya  
Meghalaya Secretariat  
Shillong 793 001



23. Minister for School Education  
Government of Nagaland  
Kohima 797 001
24. Minister for School Education  
Government of Mizoram  
Aizawl 796 001
25. Minister for School Education  
Government of Orissa  
Orissa Secretariat  
Bhubaneswar 751 001
26. Minister for School Education  
Government of Punjab  
Chandigarh 160 017
27. Minister for School Education  
Government of Rajasthan  
Government Secretariat  
Jaipur 302 001
28. Minister for School Education  
Government of Sikkim  
Sikkim Secretariat  
Tashilling  
Gangtok 737 101
29. Minister for School Education  
Government of Tamil Nadu  
Fort St. George  
Chennai 500 009
30. Minister for School Education  
Government of Tripura  
Civil Secretariat  
Agartala 799 001
31. Minister for School Education  
Government of West Bengal  
Writer's Building  
Calcutta 700 001
32. Minister for School Education  
Government of Uttar Pradesh  
Lucknow 226 001
33. Minister for School Education  
Government of National Capital  
Territory of Delhi  
Old Secretariat  
Delhi 110 054
34. Minister for School Education  
Government of Pondicherry  
Assembly Secretariat  
Victor Simonel Street  
Pondicherry 605 001
35. (i) Shri. Muhi Ram Saikia  
Minister of State for Education  
Ministry of Human Resource Development  
Shastri Bhavan, New Delhi 110 001  
(up to 19.3.1998)

VI. All Members of the Executive  
Committee not included above

- (ii) Ms. Uma Bharati  
Minister of State for Education  
Ministry of Human Resource Development  
Shastri Bhavan, New Delhi 110 001  
(from 21.3.1998)
36. Deputy Minister of Education  
Ministry of Human Resource Development  
Shastri Bhavan, New Delhi 110 001
37. Dr. A.K.Sharma  
Director  
NCERT  
New Delhi 110 016
38. Prof. J.S.Rajput  
Chairman  
National Council for Teacher Education  
C-2/10, Safdarjung Development Area  
Sri Aurobindo Marg  
New Delhi 110 016
- 39.(i) Shri. G.S.D.Sharma  
Managing Trustee  
N.V.S.K.Trust  
493/C, 8th Cross  
77th Block West, Jayanagar  
Bangalore 560 082  
(Up to 14.11.1997)
- (ii) Prof. J.V. Narlikar  
Inter University Centre for  
Astronomy and Astrophysics  
Pune University  
Pune  
(From 15.11.1997)
40. (i) Shri Christopher Anthone Browne  
Frank Anthony Public School  
13 Cambridge Road, Ulsoor  
Bangalore 560 008  
(Up to 14.11.1997)
- (ii) Smt. Vishlakshi H.  
Assistant Mistress  
Sarvodaya Higher Primary School  
Jayanagar  
Shimoga Distt. 577 201 (Karnataka)  
Shimoga (Karnataka)  
(From 15.11.1997)
41. (i) Dr. (Smt) Rita Khanna  
7 E, Hudco Place  
Andrews Ganj  
New Delhi 110 049  
(Up to 14.11.1997)
- (ii) Smt. Vibha Parthasaraty  
Principal  
Sardar Patel Vidyalaya  
Lodhi Estate  
New Delhi 110 003  
(From 15.11.1997)



42. Prof A.N. Maheshwari  
Joint Director  
NCERT  
New Delhi 110 016
43. Joint Director  
Central Institute of  
Educational Technology  
NCERT  
New Delhi 110 016
44. Dr. Arun K.Mishra  
Joint Director  
Pandit Sunderlal Sharma  
Central Institute of Vocational  
Education, 131 Zone-II, M.P.Nagar  
Bhopal 462 011
45. Dr.D.K.Bhattacharjee  
Principal  
Regional Institute of Education  
Bhubaneswar 750 007
46. Dr. P.H.S.Rao  
Jt. Educational Adviser  
Department of Education  
Ministry of HRD  
Shastri Bhavan  
New Delhi 110 001
47. (i) Shri S. Sathyamoorthy  
Financial Adviser, NCERT  
Department of Education  
Ministry of HRD  
Shastri Bhawan  
New Delhi 110 001  
(Up to 19.10.1997)
- (ii) Shri. Sudhir Nath  
Financial Adviser, NCERT  
Department of Education  
Ministry of HRD  
Shastri Bhavan  
New Delhi 110 001  
(From 20.10.1997)
48. Shri. B.P.Khandelwal  
Chairman  
Central Board of Secondary Education  
Shiksha Kendra  
2, Community Centre Preet Vihar,  
Delhi 110 092
49. Commissioner  
Kendriya Vidyalaya Sangathan  
18, Institutional Area  
Shahid Jeet Singh Marg  
New Delhi 110 016
50. Director  
Central Health Education Bureau  
(DGHS)  
Ministry of Health & Family Welfare  
Kotla Road  
New Delhi 110 002
- VII. Chairman
- (a) Central Board of Secondary Education  
New Delhi  
*Ex-officio*
- (b) Commissioner  
Kendriya Vidyalaya Sangathan  
New Delhi  
*Ex-officio*
- (c) Director  
Central Health Education Bureau  
New Delhi  
*Ex-officio*

- (d) Deputy Director General  
Incharge of Agricultural Education,  
ICAR, Ministry of Agriculture  
New Delhi  
*Ex-officio*
- (e) Director of Training  
Directorate General of  
Training and Employment  
Ministry of Labour  
New Delhi  
*Ex-officio*
- (f) Representative of Education Division  
Planning Commission  
New Delhi  
*Ex-officio*

VIII. Such other persons not  
exceeding six as the  
Government of India may nominate  
(not less than four of these  
shall be school teachers).

Special Invitee

Secretary  
Convenor

51. Deputy Director General  
Incharge of Agricultural Education  
ICAR  
Ministry of Agriculture  
Dr. Rajendra Prasad Road  
New Delhi 110 001
52. Director of Training  
Directorate General of Training and  
Employment  
Ministry of Labour  
Sharam Shakti Bhavan  
New Delhi 110 001
53. Educational Adviser  
Planning Commission  
Yojana Bhavan  
Parliament Street  
New Delhi 110 001
54. Shri K.R.Siddappa  
Retired Principal  
D/2, Vidyalayanagar  
Davangere 577 005  
Karnataka
55. Shri J.S. Bhandari  
Principal  
Kendriya Vidyalaya  
P.O.New Forest  
Dehradun 248 006  
Uttar Pradesh
56. Shri. G.B. Hegadi  
Principal  
Delhi Kannada Senior  
Secondary School  
Lodhi Estate  
New Delhi 110 003
57. Shri. O.Rangareddy  
Principal  
Jawahar Navodaya Vidyalaya  
Valasapalle, Madanapalle (post)  
Chittoor Distt. 517 325  
Andhra Pradesh
58. Dr. M.N. Kulkarni  
I-302, Ansal Lake  
View Apartments  
Shamla Hills  
Bhopal 462 013
59. Prof. Jayalakshmi  
Jaya Bhawan, Poruvazi P.O  
Sasthamkotta, Kollam 690 520  
Kerala
60. Secretary  
Council of Indian School  
Certificate Examination  
Pragati House, 3rd Floor  
47, Nehru Place  
New Delhi 110 019
61. Shri.P.N.Chawla  
Acting Secretary  
NCERT  
New Delhi 110 016



## Executive Committee

President of the Council who shall be the *Ex-officio* President of the Executive Committee

The Minister of State in the Ministry of Human Resource Development who shall be the *Ex-officio* Vice-President of the Executive Committee

A Deputy Minister of Education nominated by the President of the Council

Director of the Council

Secretary to the Ministry of Human Resource Development  
*Ex-officio*

Chairman of the University Grants Commission  
*ex-officio*

Four Educationists with known interest in school education (two of whom shall be the school teachers) nominated by the President

1. (i) Shri S.R. Bommal  
Minister for Human Resource Development and President, NCERT  
Shastri Bhavan  
New Delhi 110 001  
(Up to 19.3.1998)
- (ii) Dr. Murli Manohar Joshi  
Minister for Human Resource Development and President, NCERT  
Shastri Bhavan  
New Delhi 110 001  
(From 21.3.1998)
2. (i) Shri Muhi Ram Saikia  
Minister of State for Education  
Ministry of Human Resource Development  
Shastri Bhavan  
New Delhi 110 001  
(Up to 19.3.1998)
- (ii) Ms. Uma Bharati  
Minister of State for Education  
Ministry of Human Resource Development  
Shastri Bhavan  
New Delhi 110 001  
(From 21.3.1998)
3. Dr. A.K.Sharma  
Director  
NCERT  
New Delhi 110 016
4. Shri.P.R.Dasgupta  
Secretary to the Government of India  
Ministry of Human Resource Development  
Department of Education  
Shastri Bhavan  
New Delhi 110 001
5. Dr. (Km) Armaity Desai  
Chairperson  
University Grants Commission  
Bahadur Shah Zafar Marg  
New Delhi 110 002
7. Prof. J.S.Rajput  
Chairman  
National Council for Teacher Education  
C2/10, Safdarjung Developmental Area  
Sri Aurobindo Marg  
New Delhi 110 016

8. (i) Shri. G.S.D.Sharma  
Managing Trustee  
N.V.S.K.Trust  
493/C, 8th Cross, 77th Block  
West Jayanagar  
Bangalore 560 082  
(Up to 14.11.1997)
- (ii) Prof. J.V. Narlikar  
Inter University Centre for  
Astronomy and Astrophysics  
Pune University  
Pune  
(From 15.11.1997)
9. (i) Shri Christopher Anthone Browne  
Frank Anthony Public School  
13, Cambridge Road  
Ulsoor, Bangalore  
(Up to 14.11.1997)
- (ii) Smt. Vishlakshi H.  
Assistant Mistress  
Sarvodaya Higher Primary School  
Jayanagar, Shimoga Distt. 577 201  
Shimoga (Karnataka)  
(From 15.11.1997)
10. (i) Dr. (Smt.) Rita Khanna  
7 E, Hudco Place  
Andrews Ganj  
New Delhi 110 049  
(Up to 14.11.1997)
- (ii) Smt. Vibha Parthasaraty  
Principal  
Sardar Patel Vidyalaya  
Lodhi Estate  
New Delhi 110 003  
(From 15.11.1997)
11. Prof A.N. Maheshwari  
Joint Director NCERT  
New Delhi 110 016
12. Prof. Arun K.Mishra  
Joint Director  
Pandit Sunderlal Sharma Central  
Institute of Vocational Education  
131 Zone-II, M.P.Nagar  
Bhopal 462 001
13. Prof. P.K. Bhattacharya  
Joint Director  
Central Institute of  
Educational Technology  
NCERT  
New Delhi 110 016

Joint Director of the Council

Three members of the faculty of the Council of whom atleast two shall be at the level of Professors and Heads of Departments, nominated by the President of the Council



One representative of the Ministry  
of Education

One representative of the Ministry  
of Finance who shall be the Financial  
Adviser of the Council

Secretary, NCERT  
Convenor

14. Dr.D.K.Bhattacharjee  
Principal  
Regional Institute of Education  
Bhubaneswar 750 007
15. Dr. P.H.S.Rao  
Joint Educational Adviser  
(School Education)  
Department of Education  
Ministry of Human Resource Development  
Shastri Bhavan, New Delhi 110 001
16. (i) Shri S. Sathyamoorthy  
Financial Adviser, NCERT  
Department of Education  
Ministry of Human  
Resource Development  
Shastri Bhawan, New Delhi 110 001  
(Up to 19.10.1997)  
(ii) Shri. Sudhir Nath  
Financial Adviser, NCERT  
Department of Education  
Ministry of Human Resource Development  
Shastri Bhavan  
New Delhi 110 001  
(From 20.10.1997)
17. Shri P.N.Chawla  
Acting Secretary  
NCERT  
New Delhi 110 016



## Finance Committee

Director of the NCERT  
*Ex-officio*

Financial Adviser  
*Ex-officio*

Joint Secretary (S)  
Ministry of Human Resource  
Development

Secretary, NCERT  
*Member Convenor*

1. Dr. A.K.Sharma  
Director  
NCERT  
New Delhi 110 016
2. (i) Shri S. Sathyamoorthy  
Financial Adviser, NCERT  
Department of Education  
Ministry of Human Resource Development  
Shastri Bhavan  
New Delhi 110 001 (Up to 19.10.1997)  
(ii) Shri. Sudhir Nath  
Financial Adviser, NCERT  
Department of Education  
Ministry of Human Resource Development  
Shastri Bhawan  
New Delhi 110 001 (From 20.10.1997)
3. Dr. P.H.S.Rao  
Jt. Educational Adviser(SE)  
Department of Education  
Ministry of HRD  
Shastri Bhavan  
New Delhi 10 001
4. Shri. Anil Sinha  
Jt. Educational Adviser  
Ministry of Agriculture  
Krishi Bhavan  
New Delhi 110 001
5. Shri. B.P.Khandelwal  
Chairman  
Central Board of Secondary Education  
Shiksha Kendra  
2, Community Centre  
Preet Vihar  
Delhi 110 092
6. Shri P.N.Chawla  
Acting Secretary  
NCERT  
New Delhi 110 016



## Establishment Committee

- |  |  |
|--|--|
| I. The Director, NCERT<br>Chairman   | 1. Dr. A.K.Sharma<br>Director, NCERT<br>New Delhi 110 016  |
| II. Joint Director<br>NCERT  | 2. Prof A.N. Maheshwari<br>Joint Director, NCERT<br>New Delhi 110 016  |
| III. A nominee of the Ministry of Human<br>Resource Development<br>Department of Education,<br>Government of India to be<br>nominated by the President | 3. Dr. P.H.S.Rao<br>Joint Educational Adviser<br>Department of Education<br>Ministry of Human Resource<br>Development<br>Shastri Bhavan<br>New Delhi 110 001         |
| IV. Four educationists to be nominated<br>by the President whom at least one is<br>a Scientist   | 4. Prof. C.L.Anand<br>Former Vice-Chancellor<br>Arunachal Pradesh University<br>Now visiting Professor<br>Punjab University<br>F-87, Vikas Puri<br>New Delhi 110 018 |
|  | 5. Prof. P.Venkataramaiah<br>Vice-Chancellor<br>Kuvempu University<br>Jnanasahyadri<br>Shankaraghatta<br>Shimoga Distt. 577 115<br>Karnataka                         |
|  | 6. Dr.S.S. Salgaonkar<br>Director<br>Indian Institute of Education<br>128/2, J.P.Naik Road<br>Kothurd<br>Pune 411 029  |
|  | 7. Ms. Nargis Penchapakasan<br>Professor<br>Central Institute of Education<br>University of Delhi<br>33 Chhatra Marg<br>Delhi 110 007                                |
| V. One representative from the Regional<br>Colleges of Education to be nominated<br>by the President   | 8. Prof. D.K.Bhattacharjee<br>Principal<br>Regional Institute of Education<br>Bhubaneswar 751 007  |
| VI. One representative of the National<br>Institute of Education, New Delhi<br>to be nominated by the President  | 9. Prof. Usha Nayar<br>Head<br>Department of Women's Studies<br>NCERT<br>New Delhi 110 016   |

VII. Two representatives, one each from the regular academic and non-academic staff of the Council elected from amongst their category in the manner prescribed in the Appendix to this Regulation

Financial Adviser  
NCERT

Secretary, NCERT  
*Convenor*

10. Dr. S.K.Yadav  
Reader, DTEE  
NCERT  
New Delhi 110 016

11. Shri Ved Prakash  
Personal Assistant  
DESM, NCERT  
New Delhi 110 016

12. (i) Shri S. Sathyamoorthy  
Financial Adviser, NCERT  
Department of Education  
Ministry of Human  
Resource Development  
Shastri Bhavan  
New Delhi 110 001  
(Up to 19.10.1997)

(ii) Shri Sudhir Nath  
Financial Adviser, NCERT  
Department of Education  
Ministry of Human Resource Development  
Shastri Bhavan  
New Delhi 110 001  
(From 20.10.1997)

13. Shri P.N.Chawla  
Acting Secretary  
NCERT  
New Delhi 110 016





## Building and Works Committee

Director, NCERT  
Chairman  
*ex-officio*

Joint Director, NCERT  
Vice-Chairman  
*ex-officio*

Chief Engineer  
CPWD or his nominee

A representative  
of Ministry of Finance (Works)

The Consulting Architect of NCERT

Financial Adviser  
of the Council or his nominee

A nominee of the Ministry of Human  
Resource Development

A Civil Engineer of standing  
(nominated by the President)

1. Dr. A.K.Sharma  
Director  
NCERT  
New Delhi 110 016
2. Prof A.N. Maheshwari  
Joint Director  
NCERT  
New Delhi 110 016
3. Chief Engineer  
CPWD, NDZ-III  
Sewa Bhawan  
R.K.Puram  
New Delhi 110022
4. A.F.A (Works)  
Ministry of Urban Development  
Nirman Bhawan  
New Delhi 110 001
5. Senior Architect  
CPWD, Sewa Bhawan  
R.K.Puram  
New Delhi 110 022
6. (i) Shri S. Sathyamoorthy  
Financial Adviser, NCERT  
Department of Education  
Ministry of Human  
Resource Development  
Shastri Bhawan  
New Delhi 110 001  
(Up to 19.10.1997)  
(ii) Shri. Sudhir Nath  
Financial Adviser, NCERT  
Department of Education  
Ministry of Human  
Resource Development  
Shastri Bhawan  
New Delhi 110 001  
(From 20.10.1997)
7. Dr. P.H.S.Rao  
Joint Educational Adviser  
Department of Education  
Ministry of Human  
Resource Development  
Shastri Bhawan  
New Delhi 110 001
8. Shri K.K.Gulati  
Architect and Engineer  
C-2-C, Pocket-II, Flat No.9  
Janakpuri  
New Delhi 110 058

An Electrical Engineer of standing  
(nominated by the President)

A Member of the Executive Committee  
(nominated by the President)

Secretary, NCERT  
*Member Secretary*

9. Shri S.N. Girotra  
Resident Engineer (Electrical)  
Indian Institute of Technology  
Hauz Khas  
New Delhi 110 016
10. Prof. J.S.Rajput  
Chairman  
National Council for Teacher Education  
C2/10, Safdarjung Development Area  
Sri Aurobindo Marg  
New Delhi 110 016
11. Shri P.N.Chawla  
Acting Secretary  
NCERT  
New Delhi 110 016





## Programme Advisory Committee

**Director, NCERT**

**Chairman**

**Joint Director, NCERT**

**Vice—Chairman**

Joint Director, Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE),  
Bhopal 462 011

Joint Director, Central Institute of Educational Technology (CIET)  
New Delhi 110 016

Prof. A.K.Sacheti, Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE)  
Bhopal 462 011

Smt. Madhubala Julka, Professor, Central Institute of Educational Technology (CIET)  
NCERT, New Delhi 110 016

Head, Department of Education in Social Sciences and Humanities (DESSH)  
NCERT, New Delhi 110 016

Prof. R.K.Dixit, Department of Education in Social Sciences and Humanities (DESSH)  
NCERT, New Delhi 110 016

Head, Department of Education in Science and Mathematics (DESM), NCERT, New Delhi 110 016

Prof. R.N. Mathur, Department of Education in Science and Mathematics (DESM)  
NCERT, New Delhi 110 016

Head, Department of Educational Psychology and Foundations of Education (DEPFE)  
NCERT, New Delhi 110 016

Prof. Asha Bhatnagar, Department of Educational Psychology and Foundations of Education (DEPFE)  
NCERT, New Delhi 110 016

13. Head, Department of Pre-School and Elementary Education (DPSEE), NCERT, New Delhi 110 016

14. Dr. V.P.Gupta, Reader, Department of Pre-School and Elementary Education (DPSEE)  
NCERT, New Delhi 110 016

15. Head, Department of Education in Non-Formal and Alternative Schooling (DENFAS)  
NCERT, New Delhi 110 016

16. Dr. H.L.Sharma, Reader, Department of Education in Non-Formal and Alternative Schooling (DENFAS)  
NCERT, New Delhi 110 016

17. Head, Department of Educational Measurement and Evaluation (DEME), NCERT  
New Delhi 110 016

18. Dr. Avtar Singh, Reader, Department of Educational Measurement and Evaluation (DEME), NCERT,  
New Delhi 110 016

19. Head, Department of Teacher Education and Extension (DTEE), NCERT, New Delhi 110 016

20. Prof. V.K.Raina, Department of Teacher Education and Extension (DTEE), NCERT  
New Delhi 110 016

21. Head, Department of Women's Studies (DWS), NCERT, New Delhi 110 016

22. Dr.K.C.Nautiyal, Reader, Department of Women's Studies (DWS), NCERT, New Delhi 110 016

23. Head, Division of Library Documentation and Information (DLDI), NCERT, New Delhi 110 016

24. Head, Publication Division (PD), NCERT, New Delhi 110 016

25. Head, Department of Computer Education and Technological Aids (DCETA), NCERT, New Delhi 110 016
26. Dr. (Smt.) Kamlesh Mittal, Reader, Department of Computer Education and Technological Aids (DCETA), NCERT, New Delhi 110 016
27. Head, Navodaya Vidyalaya Cell (NVC), NCERT, New Delhi 110 016
28. Head, International Relations Division (IRD), NCERT, New Delhi 110 016
29. Head, Planning, Programming, Monitoring and Evaluation Division (PPMED), NCERT, New Delhi 110 016
30. Dr. J.P. Mittal, Reader, Planning, Programming, Monitoring and Evaluation Division (PPMED), NCERT, New Delhi 110 016
31. Head, Department of Education of Groups with Special Needs (DEGSN), NCERT, New Delhi 110 016
32. Dr. Janak Verma, Reader, Department of Education of Groups with Special Needs (DEGSN), NCERT, New Delhi 110 016
33. Head, Department of Educational Research and Policy Perspective (DERPP), NCERT, New Delhi 110 016
34. Member Secretary, ERIC, Department of Educational Research and Policy Perspective (DERPP), NCERT, New Delhi 110 016
35. Head, Department of Educational Survey and Data Processing (DESDP), NCERT, New Delhi 110 016
36. Shri. S.C. Mittal, Reader, NCERT, Department of Educational Survey and Data Processing (DESDP), NCERT, New Delhi 110 016
37. Head, DPEP-Core Resource Group, NCERT, New Delhi 110 016
38. Principal, Regional Institute of Education, Ajmer, Rajasthan 305 004
39. Dean (Instruction), Regional Institute of Education, Ajmer 305 004
40. Principal, Regional Institute of Education, Bhopal 462 013
41. Dean (Instruction), Regional Institute of Education, Bhopal 462 013
42. Principal, Regional Institute of Education, Bhubaneswar 751 007
43. Dean (Instruction), Regional Institute of Education, Bhubaneswar 751 007
44. Principal, Regional Institute of Education, Mysore 570 006
45. Dean (Instruction), Regional Institute of Education, Mysore 570 006
46. Officer-on-Special Duty, North-East Regional Institute of Education, Shillong 793 003
47. CAO & IFA, NCERT, New Delhi 110 016
48. Field Adviser, NCERT, 260, Patel Nagar, Talab Tillo, Lane No.1, Jammu 180 002
49. Field Adviser, NCERT, 128/2, Kothrud, Karve Road, Pune 411 029
50. Field Adviser, NCERT, No.64, IV Avenue, Ashok Nagar, Chennai 600 083
51. Field Adviser, NCERT, Barnachal, P.O. Bamunimaidan, Guwahati 781 001
52. PRO, NCERT, New Delhi 110 016

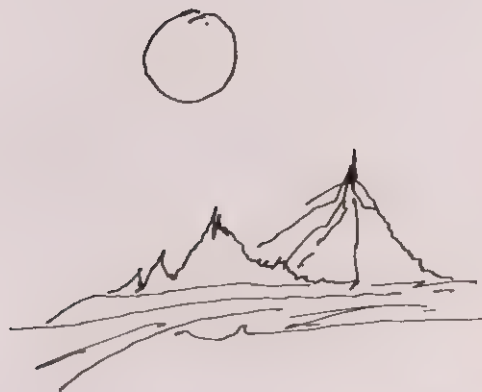
**Members Nominated by the President, NCERT**

53. Prof. Veena Mistry, Pro-Vice-Chancellor, M.S. University, Baroda
54. Prof. K.R. Shivanna, Department of Botany, Delhi University, Delhi 110 007



55. Prof. M.N.Karna, Department of Sociology, North Eastern Hill University  
Mayurbhanj Complex, Nongthmmai, Shillong- 793014
56. Prof. M.Muniyamma, Vice-Chancellor, Gulbarga University, Juana Gauga  
Gulbarga, Karnataka 585 016
57. Dr. Arvind Kumar, Director, Homi Bhaba Centre for Science Education  
TIFR, V.N. Puar Marg, Mankhurd, Bombay 400 088
58. Director, State Council of Educational Research and Training (SCERT)  
Assam, Guwahati
59. Director, State Council of Educational Research and Training (SCERT)  
Manipur, Imphal
60. Director, State Council of Educational Research and Training (SCERT)  
25/3, Ballygunj, Circular Road, Calcutta , West Bengal 700 019
61. Director, State Council of Educational Research and Training (SCERT)  
Punjab Sector 17/A, Chandigarh
62. Director, State Council of Educational Research and Training (SCERT)  
Kerala, Thiruvananthapuram
63. Secretary, NCERT, New Delhi 110016

Convenor



## Educational Research and Innovations Committee

### From the NCERT

1. Dean (Research) and *Chairman*  
Prof. A.N.Maheswari  
Joint Director, NCERT  
Dean (Research)
2. Dean (Academic)  
Prof. Arjun Dev  
Dean (Academic) and Head, DESSH
3. Dean (Coordination)  
Prof. M.S.Khaparde  
Dean (Coordination) and Head, DERPP
4. Heads of all Constituents of the NCERT
  - (i) Joint Director, Central Institute of Educational Technology
  - (ii) Joint Director, Pandit Sunderlal Sharma Central Institute of Vocational Education Bhopal
  - (iii) Principal, Regional Institute of Education, Ajmer
  - (iv) Principal, Regional Institute of Education, Bhopal
  - (v) Principal, Regional Institute of Education, Bhubaneswar
  - (vi) Principal, Regional Institute of Education, Mysore
  - (vii) Officer-on-Special Duty, North-East Regional Institute of Education, Shillong
  - (viii) Heads of the Departments of NIE
5. Two persons from the State Councils of Educational Research and Training (SCERTs) nominated by the Director, NCERT
  - (i) Director  
Maharashtra State Council of  
Educational Research and Training  
708, R.D.Kamthekar Marg  
Sadashiv Peth, Pune 411 030
  - (ii) Director  
State Council of Educational Research and Training  
JBTC Campus, Nishat Ganj  
Lucknow 228 007





### **Experts/Educationists/Research Scholars**

*Eight persons from Universities/ Research Institutes  
or other appropriate agencies nominated by the  
President, NCERT*

Prof.(Ms.) Veena R. Mishtry  
Ex- Pro-Vice Chancellor  
B-5, No.3, C.S.Patel Enclave  
Pratapganj, Vadodara

Dr. B.P.Khandelwal  
Chairman, Central Board  
of Secondary Education, Shiksha Kendra  
2, Community Centre, Preet Vihar  
New Delhi 110 092

Prof. Sarojini B. Shintri  
Basaveshwar Bhawan Ramnagar  
Dharwad 580 001

Prof. K.D.Broota  
Department of Psychology  
University of Delhi, Delhi

Prof. D.K.Samantray  
N-1, 62-A, IRC Village Bhubaneswar  
751 015 Orissa

Dr.(Ms)Vinay Bhardwaj  
Reader, Bharati Mahila College, Link Road  
New Delhi 110005

7. Dr. Neelam 'Neelkamal'  
Reader, Department of English, MDDH College  
Baba Saheb Bhim Rao Ambedkar Bihar University  
Muzaffarpur 842 001 Bihar
8. Prof. (Dr.) Shamim Hanafi  
Department of Urdu  
Jamia Millia Islamia  
New Delhi 110025

### **Permanent/Special Invitees (Nominated by the Director, NCERT)**

1. Joint Secretary (Schools)  
w.e.f. 1.2.1998  
or  
Joint Educational Adviser  
Department of Education, Ministry of Human Resource Development  
Shastri Bhawan New Delhi 110 001
2. Prof. V.K.Raina, Department of Teacher Education and Extension (DTEE), NCERT
3. Prof. R.N.Mathur  
Department of Education in Science and Mathematics  
(DESM) NCERT
4. Prof. (Smt.) S.Sinha  
Department of Education in Social  
Sciences and Humanities (DESSH), NCERT

5. Prof. (Smt.) A. Bhatnagar  
Department of Educational Psychology and  
Foundations of Education (DEPFE), NCERT
6. Prof. U. Malik  
Department of Computer Education and  
Technical Aids (DCETA), NCERT
7. Prof. (Smt.) Madhubala Julka, CIET, NCERT
8. Prof. A.K. Sacheti  
Pandit Sunderlal Sharma  
Central Institute of Vocational Education (PSSCIVE)  
131, Zone-II, M.P.Nagar Bhopal 462 013
9. Prof. G.K. Lehari  
Regional Institute of Education, Pushkar Road  
Ajmer 305 004
10. Prof. M. Sen Gupta  
Regional Institute of Education, Shyamla Hills  
Bhopal 462011
11. Prof. K.K. Vashistha  
Regional Institute of Education  
Mysore 570006
12. Prof. A.L.N. Sharma  
Regional Institute of Education  
Bhubaneswar 751007

*Convenor :*

Prof. Satvir Singh  
Member-Secretary (ERIC) DERPP, NCERT





## Academic Committee of the NIE

Dean (Academic), NCERT

*Chairman*

Head, Department of Pre-School and Elementary Education (DPSEE), NCERT

Head, Department of Education in Non-Formal and Alternative Schooling (DENFAS), NCERT

Head, Department of Education of Groups with Special Needs (DEGSN), NCERT

Head, Department of Women's Studies (DWS), NCERT

Head, Department of Education in Social Sciences and Humanities (DESSH), NCERT

Head, Department of Education in Science and Mathematics (DESM), NCERT

Head, Department of Computer Education and Technological Aids (DCETA), NCERT

Head, Department of Educational Measurement and Evaluation (DEME), NCERT

0. Head, Department of Educational Surveys and Data Processing (DESDP), NCERT

1. Head, Department of Teacher Education and Extension (DTEE), NCERT

2. Head, Department of Educational Psychology and Foundations of Education (DEPFE), NCERT

3. Head, Department of Educational Research and Policy Perspectives (DERPP), NCERT

4. Head, Division of Library, Documentation and Information (DLDI), NCERT

5. Head, International Relations Division (IRD), NCERT

6. Head, Publication Division (PD), NCERT

7. Head, Planning, Programming, Monitoring and Evaluation Division (PPMED)

8. Prof. M.Sabreen, Department of Education in Social Sciences and Humanities (DESSH), NCERT

9. Prof. M.Chandra, Department of Education in Science and Mathematics (DESM), NCERT

10. Shri. V.S.Srivastava, Reader, Department of Educational Measurement and Evaluation (DEME), NCERT

11. Dr. (Smt.) Daljit Gupta, Reader, Department of Pre-School and Elementary Education (DPSEE), NCERT

12. Prof. A.Bhatnagar, Department of Educational Psychology and Foundations of Education (DEPFE), NCERT

13. Prof. V.K.Raina, Department of Teacher Education and Extension (DTEE), NCERT

### **External Members**

24. Dr. P.N.Dave  
76, Kshitij, Pritam Society I  
Bharuch, Gujarat 392 002

25. Prof. H.Y.Mohan Ram  
38/4 Probyn Road  
Delhi 110 007

26. Prof. B.P. Khandelwal  
Chairman, CBSE, Preet Vihar  
New Delhi 110 092

27. Dr. Sudesh Nangia  
School of Social Sciences  
Jawaharlal Nehru University  
New Delhi

28. Shri. P.K. Bhaumik  
Director  
National Science Centre  
Pragati Maidan  
Near Gate No. 1, New Delhi

## Institute's Advisory Board of CIET

*Chairperson*

1. Joint Director, CIET
2. Dr.Madhubala Julka, Professor, CIET
3. Dr.Harmesh Lal, Reader, CIET
4. Dr.R.L.Phutela, Reader, CIET
5. Dr.Raja Ram Sharma, Reader, CIET
6. Shri M. Brahmaji, SuperIntending Engineer, CIET
7. All Heads of NIE Departments
8. Director General  
Doordarshan  
New Delhi 110001
9. Prof.K.L.Kumar  
Head  
Centre for Educational Technology  
Indian Institute of Technology  
New Delhi 110016
10. Prof.Habib Kidwai  
Director, MCRC, Jamia Millia Islamia  
New Delhi
11. Shri B.S.Bhatia  
Director, DECU, ISRO  
Ahmedabad
12. Shri Kiran Karnik  
Discovery Channel  
New Delhi





## Institute's Advisory Board of PSSCIVE

Joint Director  
PSSCIVE, Bhopal

*Chairperson*

Dean (Academic and Research)  
PSSCIVE, Bhopal

All Heads of the Divisions of  
PSSCIVE, Bhopal (6)

One Member of each Division of the PSSCIVE

Nine States represented at the level of Director concerned with Vocational Education (on rotation basis) : Gujarat, Goa, Tamil Nadu, Orissa, Haryana, Manipur, West Bengal, Andhra Pradesh and Madhya Pradesh

One Principal of the Regional Institute of Education (on rotation)  
Prof.S.T.V.G.Acharyulu  
RIE, Mysore

Dr.P.N.Mishra  
Director  
Institute of Entrepreneurship Development  
Madhya Pradesh  
Bhopal

Shri S.P.S. Rathore  
Director  
Regional Board of Apprenticeship Training (WR)  
ATI Campus, V.N.Purav Marg  
Sion, Mumbai 400 012

9. Dr. A.N. Shukla  
Assistant Director General (KVR)  
Anusandhan Bhavan  
Indian Agriculture Research Institute  
New Delhi 110 012
10. Dr Anil Gupta  
Professor  
Indian Institute of Management  
Ahmedabad 380 015
11. Dr.V.K.Bansal  
Professor and Head  
Department of Electrical Engineering  
Jai Narain Vyas University  
Jodhpur 342 011
12. Dr.S.K.Bhargava  
Professor and Head  
Department of Radiology  
University College of Medical Sciences  
Delhi University  
GTB Hospital  
Delhi 110 095
13. Ms.M.S. Usha  
Dean  
Home Science College  
Govind Ballabh Pant Agriculture and Technology University  
Pantnagar 263 145

14. Chairman  
National Open School  
New Delhi
15. Chairman  
Central Board of Secondary Education  
Delhi
16. Chairman  
Bihar Intermediate Education Council  
Kidvaipura  
Patna 800 001
17. Chairman  
National Council for Teacher Education  
C-2/10, Safdarjung Development Area  
Sri Aurobindo Marg  
New Delhi 110 016
18. Secretary  
Board of Secondary Education  
Rajasthan  
Ajmer
19. Shri Shekar H.Bhadsavle  
Fish Farmer  
Saguna Baugh, P.O.Niral  
Distt.Raigarh 410 101  
Maharashtra
20. Dr.Shiv Prasad  
Micro Plant Limited  
407, Dalamal Chambers  
29, New Marine Lines  
Mumbai
21. One Principal from TTTI  
(on rotation)
22. A Representative of FICCI





## Managing Committee of the Regional Institute of Education, Ajmer

1. Vice-Chancellor MDS University  
Ajmer

Chairman

2. Principal, Regional Institute of Education  
Ajmer

Vice-Chairman

*One nominee of the Education Department of each State and Union Territory in the region*

3. Smt. Vidyawati  
PES (I)  
Director  
State Council of Educational  
Research and Training, Punjab  
Chandigarh
4. Director  
Secondary Education, Haryana  
Chandigarh
5. Director  
State Institute of Education  
Sector-12  
Chandigarh Administration  
Chandigarh
6. Director of Education (Secondary)  
Government of Himachal Pradesh  
Shimla 171 001
7. Shri N.S.Tolia  
Additional Director of Education (Schools)  
Directorate of Education  
Government of NCT of Delhi  
Old Secretariat  
Delhi 110 054
8. Dr. (Smt.) N.B.Bachiwal  
Principal  
IASE, Mirahali Road  
Ajmer 305 001

*Two experts nominated by the President, NCERT*

9. Smt. S.Sandhir  
Director  
SCERT, Gurgaon  
Haryana
10. Dr. Sharad Chandra Purohit  
Director  
State Institute of Educational  
Research and Training  
Udaipur 313 001

*Two Heads of the Department of Regional Institute of Education nominated by the Director, NCERT*

11. Head of the Department of Education  
Regional Institute of Education  
Ajmer

12. Head of the Department of Education in  
Science and Mathematics  
Regional Institute of Education  
Ajmer

*A nominee of the Director, NCERT*

13. Dean (C)  
NCERT  
New Delhi 110 016

*Such other members as are required to be included by the stipulation of  
the University to which the Institute is affiliated*

14. Dr. S.D.Mishra, OSD  
Vice-Chancellor's Secretariat  
MDS University  
Ajmer

15. Administrative Officer  
Regional Institute of Education  
Ajmer

*Secretary*

16. Field Advisers of the region

*Special Invitees*





## Managing Committee of the Regional Institute of Education, Bhopal

Vice-Chancellor  
Barkatullah University  
Bhopal

Chairman

Principal  
Regional Institute of Education  
Bhopal

Vice-Chairman

*One nominee of the Education Department of each State and Union Territory in the region*

Shri Sumit Bose  
Secretary  
Department of Education  
Bhopal

Shri M.V. Joshi  
Director  
State Institute of Education  
Goa

Shri R.K. Chaudhary  
Director  
Gujarat State Institute of Educational  
Research and Training  
Ahmadabad

Director  
State Institute of Educational  
Research and Training  
Pune

Secretary (Education)  
Dadra and Nagar Haveli  
U.T. Education Department  
Silvasa

8. Assistant Director of Education  
U.T. of Daman and Diu

*Two experts nominated by the President, NCERT*

9. Prof. V.G. Bhide  
Former Vice-Chancellor  
Pune University  
Department of Physics  
Pune 411 007

10. Prof. (Smt.) Snehaban Joshi  
Department of Administration and Management  
Faculty of Education and Psychology  
M.S. University  
Baroda

*Two Heads of the Department of Regional Institute of Education nominated by the Director, NCERT*

11. Head of the Department of Education  
Regional Institute of Education  
Bhopal
12. Head of the Department of Education in  
Science and Mathematics  
Regional Institute of Education  
Bhopal

*A nominee of the Director, NCERT*

13. Dean (C)  
NCERT  
New Delhi 110 016

*Such other members as are required to be included by the stipulation of the University to which the Institute is affiliated*

14. Dr. H.K.Goswami  
Professor of Genetics and Head  
University of Teaching Department  
Barkatullah University  
Bhopal

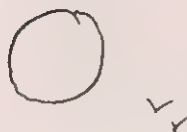
15. Dr. S.K. Kulshrestha  
Principal  
Government Hamidia College  
Bhopal

16. Administrative Officer  
Regional Institute of Education  
Bhopal

*Secretary*

17. Field Advisers of the region

*Special Invitees*





## Managing Committee of the Regional Institute of Education, Bhubaneswar

Vice-Chancellor  
Utkal University  
Bhubaneswar

Chairman

Principal  
Regional Institute of Education  
Bhubaneswar

Vice-Chairman

*One nominee of the Education Department of each State and Union Territory in the region*

3. Shri B.C.Swain  
Joint Secretary  
Department of Education  
Government of Orissa  
Secretariat  
Bhubaneswar

Shri S.Som  
Joint Secretary  
School of Education Department  
Bikash Bhavan (5th floor)  
Salt Lake  
Calcutta 700 091

Director  
State Council of Educational  
Research and Training, Mahendru  
Patna  
Bihar

6. Shri N.Das  
Director of Education  
A&N Administration  
Port Blair

*Two experts nominated by the President, NCERT*

7. Prof. D.N.Roy  
Viswa Bharati  
Shantiniketan  
Distt. Birbhum  
West Bengal

8. Shri Parawant Samantaray  
35, Meena Bagh  
New Delhi 110011

*Two Heads of the Department of Regional Institute of Education nominated by the Director, NCERT*

9. Head of the Department of Education  
Regional Institute of Education  
Bhubaneswar

10. Head of the Department of Education in  
Science and Mathematics  
Regional Institute of Education  
Bhubaneswar

11. Dean (C)  
NCERT, New Delhi

*A nominee of  
the Director,  
NCERT*

12. Administrative Officer  
Regional Institute of Education  
Bhopal

13. Field Advisers of the region

*Special Invitees*



## Managing Committee of the Regional Institute of Education, Mysore

Vice-Chancellor  
Mysore University  
Mysore

*Chairman*

2. Principal  
Regional Institute of Education  
Mysore

*Vice-Chairman*

*One nominee of the Education Department of each State and Union Territory in the region*

3. Shri V.Krishnamacharyulu  
Director  
State Council of Educational Research and Training  
Government of Andhra Pradesh  
Aliya Bldg. Opp. Lal Bahadur Stadium  
Hyderabad 500 001
4. Director  
DSERT  
B.P.Wadia Road  
Basavanagudi  
Bangalore 560 004
5. Shri K.Jayakumar  
Secretary to Government  
General Education Department  
Government of Kerala  
Thiruvananthapuram 695 001
6. Director  
DTERT  
College Road  
Chennai 600 006
7. Shri Hemachandran  
Secretary (Education)-cum-Director of Education  
Govt. of Pondicherry  
Pondicherry 605 001
8. Shri. P.B.Muthukoya  
Education Officer  
Directorate of Education  
Lakshadweep Administration  
Union Territory of Lakshadweep  
Kavaratte (Via) Cochin

*Two experts nominated by Malladi Sree Rama Murthy*

9. Dr the President, NCERT Prof. and Dean  
Faculty of Education  
Osmania University  
Hyderabad
10. Dr. Shivarudrappa  
Former Dean, Faculty of Education  
Karnataka University  
Veerabhadra Housing Board Colony Road, R.T.Nagar  
P.O.Aditya Nagar  
Bangalore 560 032



*Two Heads of the Department of Regional Institute of Education nominated by the Director, NCERT*

11. Head of the Department of Education  
Regional Institute of Education  
Mysore
12. Head of the Department of Education in  
Science and Mathematics  
Regional Institute of Education  
Mysore
13. Dean (C)  
NCERT, New Delhi
14. Administrative Officer  
Regional Institute of Education  
Bhopal
15. Field Advisers of the region

*A nominee of the  
Director, NCERT*

*Special Invitees*



## Departmental Advisory Boards (DABs) of the Departments of National Institute of Education (NIE), NCERT

### 1. Department of Pre-School and Elementary Education (DPSEE)

*Chairperson*

1. Head, DPSEE
2. Dr. (Smt.) Daljit Gupta, Reader, DPSEE
3. Dr. G.C.Upadhyay, Reader, DPSEE
4. Head, DENFAS, NCERT
5. Head, DEGSN, NCERT
6. Head, DWS, NCERT
7. Head, DTEE, NCERT
8. Head, DESM, NCERT
9. Head, DESSH, NCERT
10. Head, DEPF, NCERT
11. Head, DEMA, NCERT
12. Nominee of the Joint Director, CIET
13. Smt. Anita Ramphal  
Eklavya, E-1/208, Arera Colony  
Bhopal 462 016
14. Ms. Adarsh Sharma  
NIPCCD, Asiad Village Road  
New Delhi
15. Prof. Shyam Menon  
Director, School of Education  
IGNOU, Maidan Garhi  
New Delhi
16. Smt. Zakia Kurrien  
Joint Director, Centre for Learning Resources  
8, Deccan College Road  
Behind B.P. Apartments  
Yerwada, Pune 411 001
17. Ms. Radhika Herzberger  
Rishi Valley

### 2. Department of Education in Non-Formal and Alternative Schooling (DENFAS)

*Chairperson*

1. Head, DENFAS
2. Prof. (Smt.) S. Bhattacharya, DENFAS
3. Head, DPSEE
4. Head, DTEE
5. Head, DWS
6. Head, DEGSN
7. Nominee of the Joint Director, CIET

8. Dr. S.N.Sinha  
Director, Social Policy Research  
Institute, Institutional Area  
E 42, Sector 13, Malviyanagar  
Jaipur 302 017
9. Dr. P.N.Dave  
76, Kshitij, Pritam Society I  
Bharuch 392 002  
Gujarat
10. Shri Rohit Dhankar  
Coordinator  
Dignatar, Vill. Todi Ramjanipura  
P.O.Jagatpur, Jaipur 302 017
11. Dr. Suman Karandikar  
Indian Institute of Engineering  
J.P.Naik Path  
Karve Road, 128/2, Kothrud  
Pune 411 029
12. Shri G. Muniratnam  
RASS, Tirupati

**3. Department of Education of Groups with Special Needs (DEGSN)**

1. Head, DEGSN
2. Dr. (Smt.) Janak Verma, Reader, DEGSN
3. Head, DPSEE
4. Head, DTEE
5. Head, DENFAS
6. Head, DESSH
7. Head, DEPFE
8. Head, DCETA
9. Nominee of Joint Director, CIET
10. Dr. Veena Mistry  
Dean  
Department of Human Resource Development  
M.S. University  
Baroda 390 002
11. Dr. M.N.G.Mani  
Director  
Resource and Development Centre  
Sri Ramakrishna Mission Vidyalaya  
Coimbatore 641 020
12. Prof. Salyid Hamid  
Secretary  
Hamdard Education Society  
Talimabad, Sangam Vihar  
New Delhi 110 062
13. Prof. Francis Ekka  
Director  
CIIL, Manasgangotri  
Mysore 570 006

*Chairperson*



14. Prof. Nanduram  
Jawaharlal Nehru University  
New Delhi

**Department of Women's Studies (DWS)**

*Chairperson*

1. Head, DWS
2. Dr. (Smt.) Usha Dutta, Reader, DWS
3. Head, DESM
4. Head, DESSH
5. Head, DTEE
6. Head, DEPFEE
7. Head, DPSEE
8. Head, DENFAS
9. Nominee of Joint Director, CIET
10. Smt. Vibha Parthasarthy  
Principal  
Sardar Patel Vidyalaya  
New Delhi
11. Prof. Karuna Chanana  
Jawaharlal Nehru University  
New Delhi
12. Prof. Sarojini Bisaria  
A-59/1, SFS, DDA Flats, Saket  
New Delhi 110 017
13. Dr. Sunanda Inamdar  
Jt. Director, MSCERT  
1034, Sadashiv Peth  
Pune (Maharashtra)
14. Dr. Sharda Jain  
Sandhan  
Jaipur

**5. Department of Education in Social Sciences and Humanities (DESSH)**

*Chairperson*

1. Head, DESSH
2. Dr. M.Sabreen, Reader, DESSH
3. Dr. (Smt.) S.B. Yadav, Reader, DESSH
4. Smt. Supia Das, Lecturer, DESSH
5. Dr. (Smt.) Minoo Nandrajog, Lecturer, DESSH
6. Head, DPSEE
7. Head, DEME
8. Head, DESM
9. Head, DTEE
10. Head, DWS
11. Head, Publication Division

12. Nominee of the Joint Director, CIET
13. Dr. D.N.Jha  
Department of History  
University of Delhi  
Delhi
14. Dr. S.R.Kidwai  
School of Languages  
Jawaharlal Nehru University  
New Delhi
15. Dr. Mahabir Saran Jain  
Director  
Kendriya Hindi Sansthan  
Agra (U.P.)
16. Dr. R.K.Behl  
Former Director  
State Institute of Education  
Chandigarh
17. Dr. Sudesh Nangia  
School of Social Sciences  
Jawaharlal Nehru University  
New Delhi

**6. Department of Education in Science and Mathematics (DESM)**

1. Head, DESM
2. Prof. R.N.Mathur, Professor, DESM
3. Prof. M. Chandra, Professor, DESM
4. Prof. S.C.Das, DESM
5. Dr.K.B.Gupta, Reader, DESM
6. Head, DEME
7. Head, DESDP
8. Head, DTEE
9. Head, DPSEE
10. Head, DESSH
11. Head, Publication Division
12. Nominee of the Joint Director, CIET
13. Prof. L.S. Kothari  
71, Vaishali, Pitampura  
Delhi 110 034
14. Dr.N.K. Sehgal  
Joint Adviser and Head  
National Council for Science and  
Technology Communication, DST  
New Mehrauli Road  
New Delhi 110 016
15. Prof. Ramesh Kapoor  
Department of Chemistry and Centre for Advanced Studies in Chemistry  
Punjab University  
Chandigarh 160 014

*Chairperson*

16. Prof. B.V. Krishnamurthy  
N.B.H.M., Delhi

17. Prof. H.Y.Mohan Ram  
Department Botany  
Delhi University  
Delhi 110 007

**Department of Educational Measurement and Evaluation (DEME)**

1. Head, DEME

*Chairperson*

2. Shri. V.S.Srivastava, Reader, DEME

3. Head, DESSH

4. Head, DPSEE

5. Head, DTEE

6. Head, DENFAS

7. Head, DWS

8. Head, N.V.Cell

9. Nominee of the Joint Director, CIET

10. Shri H.K.Guyan  
Chairman  
Assam Higher Secondary Education Council  
Bamuni Maidan  
Guwahati (Assam)

11. Prof. B.P Khandelwal  
Chairman, CBSE, Preet Vihar  
Delhi 110 092

12. Prof. Y.P.Agarwal  
Faculty of Education  
Kurukshetra University  
Kurukshetra (Haryana)

13. Dr.Jacob Tharu  
Central Institute of English and Foreign Languages  
Hyderabad (A.P)

14. Prof. M.B. Menon  
Director  
National Open School  
New Delhi

**8. Department of Educational Surveys and Data Processing (DESDP)**

1. Head, DESDP

*Chairperson*

2. Dr. Satvir Singh, Reader, DESDP

3. Head, DPSEE

4. Head, DTEE

5. Head, DEPFEE

6. Head, DESM

7. Head, DWS



8. Head, DERPP
9. Head, DEME
10. Nominee of the Joint Director, CIET
11. Dr. Padam Singh  
Director  
IRMS, ICMR  
New Delhi 110 029
12. Dr. A.K.Nigam  
Director  
Institute of Applied Statistics and Development Studies  
Lucknow (U.P)
13. Shri. V.V. Rao  
Technical Director  
National Informatics Centre  
CGO Complex, A-Block  
Lodhi Road  
New Delhi
14. Prof. M.S.Yadav  
Centre for Advanced Studies in Education  
M.S.University  
Baroda
15. Dr.K.S.Natrajan  
Joint Director, Population  
Foundation of India  
Tara Crescent, B/28, Institutional Area  
New Delhi 110 016

**9. Department of Teacher Education and Extension (DTEE)**

1. Head, DTEE
2. Prof. V.K.Raina, Professor, DTEE
3. Dr. K.M.Gupta, Reader, DTEE
4. Head, DESM
5. Head, DESSH
6. Head, DCETA
7. Head, DPSEE
8. Head, DEME
9. Head, DERPP
10. Head, DWS
11. Head, DEGSN
12. Head, DESDP
13. Nominee of the Joint Director, CIET
14. Prof. V.K.Sabharwal  
Dean  
Faculty of Education  
Delhi University  
Delhi

*Chairperson*

15. Prof. Lokesh Koul  
Dean  
Faculty of Education  
H.P. University  
Shimla
16. Prof. (Ms.) Sudesh Gakhar  
Dean  
Faculty of Education  
Punjab University  
Chandigarh
17. Prof. K.K.Sharma  
Head and Dean  
Department of Education  
NHEW Campus  
Kohima, Nagaland
18. Prof. B.K.Passi  
Vice-Chairman  
National Council of Teacher Education  
New Delhi

**Department of Educational Psychology and Foundations of Education (DEPFE)**

1. Head, DEPFE *Chairperson*
2. Prof. A.Bhatnagar, DEPFE
3. Dr. N.Gupta, Reader, DEPFE
4. Head, DPSEE
5. Head, DEME
6. Head, DTEE
7. Head, DEGSN
8. Head, DERPP
9. Nominee of the Joint Director, CIET
10. Prof. A.K.Sen  
Department of Psychology  
Delhi University  
Delhi 110 007
11. Prof. Janak Pandey  
Department of Psychology  
Allahabad University  
Allahabad 211 002
12. Prof. B.N. Puhan  
Department of Psychology  
Utkal University  
Bhubaneswar 751 004
13. Dr. (Smt.) Aditi Ghosh  
Department of Psychology  
University College of Science  
Calcutta University  
92, Acharya Prafulla Chandra Road  
Calcutta 700 009

14. Prof. J.N.Joshi  
Punjab University  
Chandigarh

**11. Department of Computer Education and Technological Aids (DCETA)**

1. Head, DCETA
2. Dr. (Smt.) K.Mittal, Reader, DCETA
3. Head, DPSEE
4. Head, DESM
5. Head, DEME
6. Head, DEGSN
7. Nominee of the Joint Director, CIET
8. Prof. N.K.Tiwari  
Mechanical Engineering Department  
Indian Institute of Technology  
Hauz Khas  
New Delhi 110 016
9. Shri. P.K. Bhaumik  
Director  
National Science Centre  
Pragati Maidan  
Near Gate No. 1  
New Delhi
10. Dr. Y.K. Sharma  
Sr. Technical Director  
National Informatics Centre  
CGO Complex, Lodhi Road  
New Delhi 110 003
11. Prof. M.Radhakrishnan  
Technical Teachers Training Institute  
Chandigarh
12. Prof. J.R.Issac  
NIFT Ltd., 8 Balaji Estate  
Kalkaji Extension  
New Delhi 110 019

*Chairperson*





## Official Language Implementation Committee

### A. *Official Language Implementation Committee of the Council's Headquarters*

- |  |                         |
|--|-------------------------|
| 1. Director, NCERT   | <i>Chairman</i>         |
| 2. Joint Director, NCERT   | <i>Vice-Chairman</i>    |
| 3. Joint Director, CIET  |                         |
| 4. Secretary, NCERT  |                         |
| 5. Joint Secretary, NCERT  |                         |
| 6. All Heads of the Departments/ Divisions   |                         |
| 7. All Deputy Secretaries  |                         |
| 8. Chief Accounts Officer  |                         |
| 9. Vigilance-cum-Security Officer  |                         |
| 10. Public Relations Officer   |                         |
| 11. Director, Official Language, Ministry of Human Resource Development<br>New Delhi                 |                         |
| 12. Director (Implementation) Department of Official Language<br>Ministry of Home Affairs, New Delhi |                         |
| 13. Professor Incharge, Hindi Cell   | <i>Member-Secretary</i> |
| 14. Hindi Officer  |                         |

### *Official Language Implementation Committee of the Council*

- |   |                         |
|---|-------------------------|
| 1. Director, NCERT  | <i>Chairman</i>         |
| 2. Joint Director, NCERT  | <i>Vice-Chairman</i>    |
| 3. Joint Director, CIET   |                         |
| 4. Joint Director, PSSCIVE  |                         |
| 5. Secretary, NCERT   |                         |
| 6. Joint Secretary, NCERT   |                         |
| 7. All Heads of the Departments/ Divisions  |                         |
| 8. All Principals of the Regional Institutes of Education                             |                         |
| 9. Officer-on-Special Duty (OSD), North-East Regional Institute of Education Shillong |                         |
| 10. All Field Advisers  |                         |
| 11. All Deputy Secretaries  |                         |
| 12. Chief Accounts Officer  |                         |
| 13. Vigilance-cum-Security Officer  |                         |
| 14. Public Relations Officer  |                         |
| 15. Professor Incharge, Hindi Cell  | <i>Member-Secretary</i> |
| 16. Hindi Officer   |                         |

## Sanctioned Staff Strength

## Category-wise Sanctioned Staff Strength of the NCERT as on 31.03.1998

| Sl. No       | Source of Information         | Academic Group (Ministerial) |    |     | Non-Academic (Technical) |     |     | Non-Academic |     |     | Group D | Total |
|--------------|-------------------------------|------------------------------|----|-----|--------------------------|-----|-----|--------------|-----|-----|---------|-------|
|              |                               | A                            | B  | C   | A                        | B   | C   | A            | B   | C   |         |       |
| 1.           | Council's Headquarters        | 199                          | 01 | 02  | 23                       | 200 | 291 | 45           | 47  | 146 | 285     | 1239  |
| 2.           | C I E T                       | 25                           | —  | —   | 03                       | 23  | 33  | 30           | 34  | 74  | 24      | 246   |
| 3.           | RIE, Ajmer                    | 57                           | 24 | 35  | 01                       | 10  | 37  | 04           | 03  | 41  | 85      | 297   |
| 4.           | RIE, Bhopal                   | 57                           | 24 | 42  | 01                       | 11  | 35  | 03           | 03  | 32  | 86      | 294   |
| 5.           | RIE, Bhubaneswar              | 68                           | 27 | 55  | 01                       | 11  | 35  | 04           | 04  | 44  | 92      | 341   |
| 6.           | RIE, Mysore                   | 68                           | 19 | 44  | 01                       | 10  | 37  | 05           | 04  | 36  | 75      | 299   |
| 7.           | RIE, Shillong                 | 24                           | —  | —   | —                        | 01  | 02  | —            | —   | 01  | 02      | 30    |
| 8.           | FAs Offices                   | 25                           | —  | —   | —                        | 26  | 17  | —            | —   | 13  | 26      | 107   |
| 9.           | RPDCs<br>Publication Division | —                            | —  | —   | —                        | —   | 15  | 06           | 06  | 06  | 06      | 39    |
| 10.          | PSSCIVE, Bhopal               | 35                           | —  | —   | 04                       | 05  | 12  | 05           | 01  | 15  | 05      | 82    |
| <b>Total</b> |                               | 558                          | 95 | 178 | 34                       | 297 | 514 | 102          | 102 | 408 | 686     | 2974  |

## National Council of Educational Research and Training

## Receipt and Payment Account for 1997-98

| Receipt  |                    | Payment                      |                    |
|--|--------------------|------------------------------|--------------------|
| <b>OPENING BALANCE</b>   |                    | <b>BUDGETARY EXPENDITURE</b> |                    |
| Cash in hand and at Bank   | 12,65,36,056       | PAY OF OFFICERS              |                    |
|  |                    | Non-Plan                     | 5,42,00,795        |
| Funds in Transit   | <u>7,47,000</u>    | Plan                         | <u>9,75,073</u>    |
|  | 12,72,83,056       |                              | 5,51,75,868        |
|  |                    | PAY OF ESTABLISHMENT         |                    |
|  |                    | Non-Plan                     | 8,31,81,830        |
|  |                    | Plan                         | <u>4,37,634</u>    |
|  |                    |                              | 8,36,19,464        |
| Grants received from Ministry of Human Resource Development (MHRD) for Budgetary Expenditure |                    | ALLOWANCES AND HONORARIA     |                    |
|  |                    | Non-Plan                     | 11,67,87,127       |
| Non-Plan   | 16,50,00,000       | Plan                         | <u>23,98,325</u>   |
| Plan   | <u>2,00,00,000</u> |                              | 11,91,85,452       |
|  | 18,50,00,000       |                              |                    |
|  |                    | TRAVELLING ALLOWANCE         |                    |
| Grants relating to Specific Projects (Schedule H)  | 19,95,89,142       | Non-Plan                     | 19,87,418          |
|  |                    | Plan                         | <u>2,87,787</u>    |
|  |                    |                              | 22,75,205          |
| <b>Council's Receipts (Section V)</b>  |                    | OTHER CHARGES                |                    |
| Rent of Council's Buildings  | 33,25,814          | Non-Plan                     | 5,33,67,610        |
| Interest on Loans & Advances   | 23,01,438          | Plan                         | <u>18,55,233</u>   |
|  |                    |                              | 5,52,22,873        |
|  |                    | SCHOLARSHIPS AND FELLOWSHIPS |                    |
| Interest on Term Deposit   | 2,64,07,972        | Non-Plan                     | 5,21,554           |
| Interest on Provident Fund Investment  | 1,03,76,016        | Plan                         | <u>13,085</u>      |
|  |                    |                              | 5,34,639           |
| Recovery of Over payments  | 24,40,230          | PROGRAMMES                   |                    |
|  |                    | Non-Plan                     | 25,66,12,184       |
|  |                    | Plan                         | <u>1,15,75,256</u> |
|  |                    |                              | 26,81,87,440       |
| Sale Proceeds of Science Kits  | 15,03,561          | EQUIPMENT AND FURNITURE      |                    |
| Fees and Charges   | 26,91,432          | Non-Plan                     | 23,45,282          |
|  |                    | Plan                         | <u>20,44,648</u>   |
|  |                    |                              | 43,89,930          |
| Sale Proceeds of Books and Periodicals   | 35,84,32,401       | LAND AND BUILDINGS           |                    |
| Leave Salary and Pension Contribution  | 1,80,964           | Non-Plan                     | 1,75,66,716        |
|  |                    | Plan                         | <u>61,18,204</u>   |
|  |                    |                              | 2,36,84,920        |

Contd.....



# **Receipt and Payment Account for 1997-98**

| Receipt                          |                  | Payment  |   |
|----------------------------------|------------------|--|---|
| Central Government Health Scheme | 2,79,285         | Payment relating to Specific Projects (Schedule H) | 12,46,87,951 12,46,87,9                   |
| Miscellaneous Receipts           | <u>49,28,143</u> | 4128,67,256  | SECTION II                                |
|                                  |                  |  | MISCELLANEOUS PAYMENTS                    |
|                                  |                  |  | Rent of Council Building 10,33,952        |
|                                  |                  |  | Central Govt. Health Scheme 33,91,460     |
|                                  |                  |  | Pension Contribution 1,28,438             |
|                                  |                  |  | Contributory Provident Fund               |
|                                  |                  |  | Interest and Council's Share } 14,32,948  |
|                                  |                  |  | Interest on G.P.F. 2,71,69,632            |
|                                  |                  |  | Pension and DCRD 4,37,97,857              |
|                                  |                  |  | Audit Fees 500                            |
|                                  |                  |  | Advertisement 41,22,319                   |
|                                  |                  |  | Deposit Linked Insurance Scheme 19,161    |
|                                  |                  |  | Miscellaneous/Unforeseen 54,876 8,11,51,1 |

## **DEBT, DEPOSIT AND REMITTANCES**

| <b>Loans and Advances (Interest Bearing)</b> |                    | <b>Loans and Advances (Interest Bearing)</b> |                      |
|--|--------------------|--|----------------------|
| (Section-IV(3)(I))                           |                    | Motor Car/Scooter                            | 14,08,786            |
| Motor Car/Scooter                            | 14,09,715          | Other Conveyance (Cycle)                     | 90,000               |
| Other Conveyance (Cycle)                     | 55,042             | House Building Advance                       | 16,31,278            |
| House Building Advance                       | 34,48,366          | Fan Advance                                  | <u>20,700</u>        |
| Fan Advance                                  | <u>14,689</u>      |  | 31,50,71             |
|  | 49,27,812          |  | Departmental Advance |
| Section IV(3) II (Non-Interest Bearing)      |                    | Permanent Advance                            | 15,600               |
|  |                    | Prog./Miscellaneous Advance                  | <u>3,78,745</u>      |
|  |                    |  | 3,94,34              |
|  |                    | <b>Debt</b>                                  |                      |
|  |                    | GPF  | 5,43,98,742          |
| Departmental Advances (Section IV(5))        |                    |  |                      |
|  |                    | CPF  | 8,95,336             |
| Permanent Advance                            | 35,800             |  |                      |
| Prog./Miscellaneous Advance                  | <u>1,49,797</u>    |  |                      |
|  | 1,85,597           |  |                      |
| <b>Debt (Section IV(1))</b>                  |                    | PF Investment (Long Term)                    | 1,99,20,000          |
| GPF  | 6,53,34,802        |  |                      |
| Interests on GPF                             | <u>2,71,69,632</u> | Council's Investment (Short Term)            | <u>28,10,80,000</u>  |
|  | 9,25,04,434        |  | 30,10,00,000         |
| CPF  | 12,45,682          | Earnest Money and Security                   | 13,37,327            |
| Interest and Council's Share                 | 14,32,948          | Caution Money                                | 1,38,250             |
|  | 26,78,630          | Others                                       | 6,74,209             |
|  |                    | Other Deposit (Science Kits)                 | <u>15,78,454</u>     |
|  |                    |  | 37,28,240            |

**INVESTMENTS**

(Section IV(4))

|                         |                     |              |
|-------------------------|---------------------|--------------|
| PF Long Term Investment | 34,00,000           |              |
| Short Term Investment   | <u>47,43,00,000</u> | 47,77,00,000 |

**DEPOSITS**

(Section IV(2))

|                              |                  |           |
|------------------------------|------------------|-----------|
| Earnest Money and Security   | 36,20,647        |           |
| Caution Money                | 2,11,987         |           |
| Others                       | 4,60,791         |           |
| Other Deposits (Science Kit) | <u>14,62,408</u> | 57,55,833 |

**REMITTANCES**

(Section IV(7))

|                           |               |              |
|---------------------------|---------------|--------------|
| CPF/CPF                   | 5,67,793      |              |
| PLI/LIC                   | 2,60,346      |              |
| GLIS                      | 25,81,529     |              |
| Income Tax                | 28,71,683     |              |
| Death Relief Fund         | 2,57,385      |              |
| Thrift and Credit Society | 7,64,253      |              |
| Miscellaneous             | 14,21,386     |              |
| Sub-Office Remittances    | 15,99,97,810  |              |
| Periodical Remittances    | 19,47,64,182  |              |
| Sales Tax                 | <u>74,893</u> | 36,35,61,440 |

**Grand Total 1,87,20,53,200****REMITTANCES**

|                           |               |              |
|---------------------------|---------------|--------------|
| GPF?CPF                   | 6,65,260      |              |
| PLI/LIC                   | 3,72,768      |              |
| GLIS                      | 28,02,613     |              |
| Income Tax                | 26,50,555     |              |
| Death Relief Fund         | 2,82,351      |              |
| Thrift and Credit Society | 8,54,004      |              |
| Miscellaneous             | 15,18,747     |              |
| Sub-office Remittances    | 16,01,60,419  |              |
| Periodical Remittances    | 19,47,64,182  |              |
| Sales Tax                 | <u>67,765</u> | 36,41,38,664 |

**CLOSING BALANCE**

|                                       |                  |              |
|---------------------------------------|------------------|--------------|
| Cash in Head and at bank (Schedule C) | 32,06,24,739     |              |
| Funds in Transit                      | <u>56,07,485</u> | 32,62,32,224 |

Chief Accounts Officer  
NCERT, New Delhi 110 016

Secretary  
NCERT, New Delhi 110 016

## Publications Brought Out during 1997-98

### S.No Title

#### Class I

1. Bal Bharati Bhag I
2. Abhyas Pustika Bal Bharati Bhag I (New Book)
3. Abhyas Pustika Bal Bharati Bhag I
4. Let's Learn English Book I
5. Workbook for Let's Learn English Book I

#### Class II

6. Bal Bharati Bhag II
7. Abhyas Pustika Bal Bharati Bhag II
8. Let's Learn English Book II
9. Workbook for Let's Learn English Book II
10. Let's Learn Mathematics Book II

#### Class III

11. Bal Bharati Bhag III
12. Abhyas Pustika Bal Bharati Bhag III
13. Let's Learn English Book III
14. Workbook for Let's Learn English Book III
15. Let's Learn Mathematics Book III
16. Exploring Environment Book I
17. Hum Aur Hamara Desh

#### Class IV

18. Bal Bharati Bhag IV
19. Abhyas Pustika Bal Bharati Bhag IV
20. English Reader Book I
21. Read for Pleasure I (English Supplementary Reader)
22. Our Country India (Social Studies)
23. Hamara Desh Bharat
24. Exploring Environment Book II

#### CLASS V

25. Bal Bharati Bhag V
26. Abhyas Pustika Bal Bharati Bhag V
27. Swasti Bhag I
28. English Reader Book II
29. Workbook for English Reader Book II
30. Read for Pleasure II (English Supplementary Reader)
31. Our Country and the World
32. Our Country and the World
33. Hamara Desh Aur Sansar
34. Exploring Environment Book III

#### CLASS VI

35. Saras Bharati Bhag I (New Book)
36. Sankshipt Ramayan (Supplementary Reader in Hindi)



37. Swasti Bhag II
38. Swasti Bhag II
39. English Reader Book II
40. Workbook for English Reader Book II
41. Read for Pleasure III (English Supplementary Reader)
42. Mathematics Book I
43. Problem Book of Mathematics (Supplementary Reader in Mathematics)
44. Ganit Pustak I
45. Prachin Bharat
46. Prachin Bharat
47. Lands and Peoples Part I
48. Desh Aur Unke Niwasi Bhag I
49. Our Civic Life
50. Hamara Nagarik Jeevan
51. Science Book I
52. Science : A Workbook
53. Naya Jeevan Bhag I (New Book)

#### **CLASS VII**

54. Sankshipt Mahabharat
55. Swasti Bhag III
56. Abhyas Pustika Swasti Bhag III
57. Abhyas Pustika Swasti Bhag III
58. English Reader Book IV
59. Read for Pleasure IV (English Supplementary Reader)
60. Mathematics Book II Part I
61. Mathematics Book II Part II
62. Ganit Pustak II Bhag I
63. Ganit Pustak II Bhag II
64. How We Govern Ourselves
65. Hum Apna Shashan Kaise Chhale Hein
66. Medieval India
67. Madhyakalin Bharat
68. Science Book II
69. Problem Book of Mathematics
70. Lands and Peoples Part II
71. Desh Aur Unke Niwasi Bhag II

#### **Class VIII**

72. Kishore Bharati Bhag III
73. Trividha
74. Jeevan Aur Vigyan
75. Jeevan Aur Vigyan
76. Swasti Bhag IV
77. Abhyas Pustika Swasti Bhag IV
78. English Reader V
79. Read For Pleasure V
80. Mathematics Part I
81. Mathematics Part II
82. Ganit Bhag I
83. Ganit Bhag II
84. Our Country Today—Problems and Challenges
85. Hamara Bharat-Aaj Ki Samasyayen Aur Chhunautiyan
86. Modern India
87. Adhunik Bharat
88. Lands and Peoples Part III
89. Desh Aur Unke Niwasi Bhag III
90. Science
91. Problem Book of Mathematics

### **Class IX**

92. Language Through Literature 1 English Reader
93. Swati Bhag I
94. Prag Bhag I
95. Science
96. Vigyan Bhag I
97. Vigyan Bhag II
98. Mathematics
99. Problem Book of Mathematics
100. Ganit Bhag II
101. The Story of Civilization Vol. I
102. Sabhyata Ki Kahani Bhag I
103. Understanding Environment
104. Paryavaran Bodh
105. Manak Hindi Vyakaran Aur Rachna
106. Sanchayika Bhag I
107. Our Economy : An Introduction

### **Class X**

108. Language Through Literature 2 English Reader
109. Language Through Literature 2 Workbook to English Reader
110. Language Through Literature 2 English Supplementary Reader
111. Swati Bhag II
112. Parag Bhag II
113. Science
114. Mathematics
115. Vigyan Bhag I
116. Ganit Bhag I
117. Ganit Bhag II
118. India—Economic Geography
119. Bharat—Arthik Bhugol
120. Mansi Bhag II
121. The Story of Civilization Vol. II
122. Sabhyata Ki Kahani Bhag 2
123. Our Government How It Functions
124. Hamara Shashan Kaise Chalta Hein
125. Problem Book of Mathematics

### **Class XI**

126. Niharika Bhag I
127. Pallav Bhag I
128. Mandakini Bhag I
129. Prawal Bhag I
130. Sahitya Ka Swarup
131. I am the People
132. Stories, Plays and Tales of Adventure
133. Rangmanchika
134. Organs of Government
135. Sarkar Ke Ang
136. Ancient India
137. Prachin Bharat
138. Principles of Geography Part I
139. Bhugol Ke Sidhant Bhag I
140. Principles of Geography Part II
141. Bhugol Ke Sidhant Bhag II
142. Sociology : An Introduction
143. Samajshastra: Ek Parichay
144. Medieval India

145. Madhyakalin Bharat (Revised Edition)
146. Elementary Statistics
147. Prarambhik Sankhyiki
148. Understanding Psychology of Human Behaviour
149. Accounting Part I
150. Accounting Part II
151. Business Studies
152. Vyavasaya Adhyayan
153. Physics Part I
154. Physics Part II
155. Bhautiki Bhag II
156. Chemistry Part I
157. Chemistry Part II
158. Rasayan Vigyan Bhag I
159. Rasayan Vigyan Bhag II
160. Biology Part I
161. Biology Part II
162. Jeev Vigyan Bhag I
163. Jeev Vigyan Bhag II
164. Manav Vyavahar Ka Manovigyan
165. Society, State and Government
166. Samaj, Rajya aur Sarkar
167. Evolution of Indian Economy
168. Bharatiya Arthavyavastha Ka Vikas
169. Fieldwork and Laboratory Techniques in Geography
170. Mathematics Part I
171. Mathematics Part II
172. Ganit Bhag I (New Book)

#### **Class XII**

173. Pallav Bhag II
174. Prawal Bhag II
175. A Course in Written English
176. The Web of Our Life
177. Dear to All the Muses
178. On Top of the World
179. Sanskrit Kavita Kadambini
180. Chemistry Part I
181. Chemistry Part II
182. Rasayan Vigyan Bhag I
183. Major Concepts in Political Science
184. Rajniti Vigyan Ki Pramukh Avadharnayan
185. Modern India
186. India Resources and Regional Development
187. Accounting Book I
188. Indian Society
189. Social Change
190. Business Studies: Office Administration
191. Mathematics Part I
192. Mathematics Part II
193. Mathematics Part III
194. Contemporary World History Part I
195. Contemporary World History Part II
196. Samkalin Vishwa Itihas Bhag I
197. Democracy in India
198. Bharat Mein Loktantra
199. Physics Part I
200. Physics Part II
201. Business Studies Part II



## 202. Lekhakaran Bhag I (New Book)

### Urdu Textbooks

#### Class I

- 203. Aao Hisab Seekhen Book I
- 204. Urdu Ki Nai Kitab

#### Class II

- 205. Aao Hisab Seekhen Book II
- 206. Urdu Ki Nai Kitab

#### Class III

- 207. Aao Hisab Seekhen Book III
- 208. Gird-O-Pesh Ka Mutala Book I
- 209. Urdu Ki Nai Kitab

#### Class IV

- 210. Hamara Mulk Hindustan
- 211. Gird-O-Pesh Ka Mutala Book II
- 212. Aao Hisab Seekhen Book IV
- 213. Urdu Ki Nai Kitab

#### Class V

- 214. Gird-O-Pesh Ka Mutala Book III
- 215. Aao Hisab Seekhen Book V Part I
- 216. Aao Hisab Seekhen Book V Part II

#### Class VI

- 217. Hisab Book I
- 218. Science
- 219. Urdu Ki Nai Kitab

#### Class VII

- 220. Hisab Book II Part I
- 221. Hisab Book II Part II
- 222. Science
- 223. Mumalik Aur Unke Bashinde Part II

#### Class VIII

- 224. Hisab Book III Part II
- 225. Science
- 226. Aaj Ka Hindustan—Masael Aur Taqaze
- 227. Jadeed Hindustan

#### Class X

- 228. Science
- 229. Urdu Ki Nai Kitab

#### Class XI

- 230. Qadeem Hindustan
- 231. Jugraphia Ke Osool Part II (New Book)

#### Class XII

- 232. Hindustan Mein Jamhoorat
- 233. Hindustan—Wasael Aur Ilaqai Taraqqi

234. Khatedari (Accounting Book II ) (New Book)

**Textbooks for Navodaya Vidyalayas**

**Class VI**

235. Workbook for My Family and Friends

236. Abhyas Pustika Hamari Hindi Bhag I

**Class VII**

237. Workbook for My Small World

238. Supplementary Reader for My Small World

239. Abhyas Pustika Hamari Hindi Bhag II

**Class VIII**

240. The World Around Me

241. Workbook for the World Around Me

**Teacher's Guides**

242. Shikshak Sandarshika Hindi Bharati Bhag III (Third Language ), Class IX

243. Shikshak Sandarshika (Second Language ), Classes VI-VIII Hindi Padhane Wale Shikshako Ke Liye Marg-Darshak Pustika

**Textbooks for Non-Formal Education**

244. Milkar Seekhen Bhasha Bhag IV Class IV

**Textbooks for Vocational Courses**

245. Mushroom Cultivation (Instructional-cum-Practical Manual) Classes IX-X

246. Vermiculture(Instructional-cum-Practical Manual) Classes IX-X

247. Bee-Keeping (Instructional-cum-Practical Manual) Classes IX-X

248. Rural Engineering Technology: Soil and Water Management (Textbook) Class XII

249. Rural Engineering Technology: Soil and Water Management (Practical Manual) Class XII

250. Dairy Technology: Dairy Products II (Textbook) Class XII

251. Dairy Technology: Dairy Products II (Practical Manual) Class XII

252. Rural Engineering Technology: Energy Application (Paper V) Class XII (Textbook)

253. Dairying: Milk Processing (Textbook) Class XI

254. Dairying: Milk Processing (Practical Manual) Class XI

**Textbooks for Arunachal Pradesh**

255. Arun Bharati Bhag I Class I

256. Abhyas Pustika Arun Bharati Bhag I Class I

257. New Dawn Readers I Class I

258. Arun Bharati Bhag II

259. Abhyas Pustika Arun Bharati Bhag II

260. Arun Bharati Bhag III

261. Abhyas Pustika Arun Bharati Bhag III

**Supplementary Readers**

**English**

1. Talking of Trees
2. Thinking Together
3. How Many Are We?
4. Let's Be Happy
5. The Story of  $\pi$  (Pi)
6. The Smiling Flower

**Hindi**

7. Subhas Chandra Bose : Ek Jeevni

8. France
9. Kahanlyon Ki Phulwari
10. Aao Geet Gayen
11. Kam Ki Battein
12. Chutkalo Ka Pitara
13. Aao Khel Khelein
14. Uraav Lokgeet Evam Lokkathayen
15. Munda Lokgeet Evam Lokkathayen
16. Santhal Jeevan Evam Sanskriti Ki Ek Jalak
17. Madhyakalin Bhartiya Ganit — Kuch Aitchasik Va Sanskritik Jalkiyan
18. Prachin Bhartiya Ganit Ki Aitihisik Va Sanskritik Jalkiyan
19. Milkari Sochein
20. Adivasi Lokkathayen
21. Ghar Se Door
22. Vishwa Ki Prashidha Lokkathayen
23. Sarojini Naidu

### **Research Monographs and Other Publications**

1. Fifth Survey of Educational Research Vol. I (Trend Reports)
2. Sixth All India Educational Survey National Tables: Vol. I (Educational Facilities in Rural and Urban Areas)
3. Women Who Created History
4. Legal Literacy for Educational Personnel with focus on Women and Girls
5. Balika Ka Sakaratmak Atambodh Vikas
6. Fun with Art and Craft
7. Annual Report : NCERT 1996-97
8. Annual Accounts of NCERT 1995-96
9. Varshik Report : NCERT 1996-97
10. Varshik Lekha : NCERT 1995-96
11. Directory of Personnel of Non-formal Education
12. Report of the National Study of Scholastic Achievement at Classes X and XII
13. Total Solar Eclipse
14. Freedom Movement's Vision of Independent India
15. Aajadhi Ki Ladhai Ka Sapna
16. Manav Adhikar: Strot Grantha
17. Early Childhood Education Programme
18. Hindi Sahayika Bhag I
19. Hindi Sahayika Bhag II
20. Bhasha Sampranti Nidaan Aur Upchar
21. Glimpses of Pre-Primary and Elementary Education: (two Issues)
22. Education in an Information Age
23. Information Bulletin 1997-98 (Innovation in Teacher Education and School Education — All India Competition) (Bi-lingual)
24. Code of Professional Ethics for Teachers (Evolved by All India Federation of Primary and Secondary Teachers Associations and a Group of Educationists in a series of workshops facilitated by the NCERT)
25. Jawaharlal Nehru National Science Exhibition for Children 1997(Gurgaon)—Folder
26. Bachhon Ke Liye Jawaharlal Nehru Rashtriya Vigyan Pradarshni - 1997 (Gurgaon)
27. Jawaharlal Nehru National Science Exhibition for Children-1997 Gurgaon— List of Exhibits (Bi-lingual)
28. Structure and Working of Science Models (Bi-lingual)

### **M.H.R.D. Publications**

29. Centrally sponsored Scheme of Computer Literacy and Studies in Schools
30. Remodelling of School Education Boards (Report of the Task Force on the Role and Status of Boards of Secondary Education)
31. Code for Strengthening of Boarding and Hostel Facilit for Girl Students of Secondary Schools (Financial Assistance to Voluntary Agencies)



## 32. Teachers' Service Conditions and Redressal of their Grievances in Private Schools

### **DPEP Publications**

33. Training Module on Action Research
34. Teacher Empowerment and School Effectiveness at Primary Stage
35. National Conference on proposed Interventions for inclusive Schooling of Children with Disabilities in DPEP Districts

### **Journals**

1. The Primary Teacher (four issues)
2. Primary Shikshak (four issues)
3. School Science (four issues)
4. Journal of Indian Education (three issues)
5. Bhartiya Adhunik Shiksha (four issues)
6. Indian Educational Review: January 1997 (one issue)
7. Indian Educational Abstracts : July 1997 (one issue)

### **NCERT Newsletter/Shaikshik Darpan**

1. NCERT Newsletter (three issues)
2. Shaikshik Darpan (two issues)



**Regional Production-cum-Distribution Centres of  
Publication Division, NCERT**

| <b>Sl.No.</b> | <b>Name and Address</b>  | <b>States/UTs Covered</b>   |
|---------------|--|---|
| 1.            | Regional Production-cum-Distribution Centre<br>Publication Division, NCERT<br>C/o Navjivan Trust, P.O.Navjivan<br>Ahmedabad 380 014<br>Phone: 405446                                     | Gujarat, Madhya Pradesh, Maharashtra, Goa   |
| 2.            | Regional Production-cum-Distribution Centre<br>Publication Division, NCERT<br>108, 100-Ft. Road<br>Hoskarehalli Extension, Banashankari III Stage<br>Bangalore 560 085<br>Phone: 6692740 | Tamil Nadu, Pondicherry, Kerala, Karnataka,<br>Andhra Pradesh, Lakshadweep, Minicoy and<br>Amindivi Islands |
| 3.            | Regional Production-cum-Distribution Centre<br>Publication Division, NCERT<br>32, B.T.Road<br>Sukchar, 24 Parganas<br>Calcutta 743 179<br>Phone: 5530454                                 | West Bengal, Bihar, Orissa,<br>North-East States, Arunachal Pradesh,<br>Sikkim, Andaman and Nicobar Islands |

## Names and Addresses of Wholesale Agents of NCERT Publications

### Andhra Pradesh

1. M/s. Gupta Brothers Books  
Main Road  
47-13-10/1 Dwarka Nagar  
Vishakhapatnam 530 016  
Phone: 554454

2. M/s. Himalaya Book Depot  
5-7-561, Dargah Yousufain Road  
Nampally Bazar  
Hyderabad 500 001  
Phone: 226379, 225649

3. M/s. Central Book Shop  
5-9-186, Chapel Road  
Hyderabad 500 001  
Phone: (O) 202980, (R) 239111

4. M/s. Srinivasa Paper and Stationary Mart  
Door No. 59-5-11/1, Ashok Nagar  
Vijayawada 520 010 (A.P)  
Phones: (08812) 25826, 21648

### Bihar

11. M/s. Children Book Centre Pvt. Ltd.  
Machhua Toli  
Patna 800 004  
Phones: (O) 650362, (R) 220460, 655048

2. M/s. Pustak Mandir  
Pustak Path, Upper Bazar  
Ranchi 834 001  
Phones : (O) 203273, 313249

3. M/s. Pustak Sadan  
Rama Path  
East Over Bridge  
Ranchi 834 001  
Phones : (O) 307515, 204364

4. M/s. Ideal Book Stores  
Near Ratan Talkies  
Main Road, Ranchi 834 001  
Phones: (O) 2044810, (R) 303629

5. M/s. Gyan Bharati  
Kamdheni Complex, Jora Phatak Road  
Dhanbad 820 001  
Phones : (O) 302969

### Chandigarh

1. M/s. Manchanda Traders & Suppliers  
S.C.F. No. 1, Sector 19-C  
Post Box No. 705  
Chandigarh 160 019  
Phones: (O) 775216, 775768, 775769  
(R) 560499

2. M/s. Manchanda Departmental Store  
S.C.F. No.2, Sector 19-C  
Chandigarh 160 019  
Phones: (O) 775012

### Delhi

1. M/s. Geeta Publishing House  
T-565, Pragati Complex  
Idgah Chowk  
Delhi 110 006  
Phone: 7775482, 7522668

2. M/s. Gupta Booksellers  
994/66, Tri Nagar,  
Delhi 110 035  
Phone: 7186836, 7195926

3. M/s. Raj Pustak Bhandar  
54, Central Market  
Lajpat Nagar  
New Delhi 110 024  
Phones: 6832627, 6849198

4. M/s. Parkash Brothers  
46, Bhagat Singh Market  
New Delhi 110 001  
Phones: 3362615, 3362616-17

5. M/s. Chawla Book Depot  
Shop No. 6, Sector No. III  
R.K.Puram  
New Delhi 110022  
Phones: 6174783, 6174501  
6184849, 6179400



6. M/s. Vishwa Bharati Prakashan  
4071, Nai Sarak  
Delhi 110 006  
Phones: (O) 2916973, (R) 6833079

7. M/s. Deepak Stationers  
709/1, G.T. Road  
Opposite Water Tank  
Shahdara  
Delhi 110 032  
Phones: 2285327, 2280956

8. M/s. Sanjay Brothers  
2590, Nai Sarak  
Delhi 110 006  
Phone: 3261916

9. M/s. Shiv Das and Sons  
9655, Islam Ganj, Library Road  
Azad Market  
Delhi 110006  
Phones: 7514886, 7777366, 3551646

10. M/s. National Book House  
8/18, Kalkaji Extension  
New Delhi 110 019  
Phones: 6232342, 6212711

11. M/s. Subhash Brothers  
2606, Nai Sarak  
Delhi 110 006  
Phones: 3261011, 3283733

12. M/s. Rajesh Pustak Bhandar  
4 A/3, Jwala Heri  
Paschim Vihar  
New Delhi 110 063  
Phones: 5580992, 5584826

13. M/s. Lamba Book Depot  
No. 9, Old Market  
Tilak Nagar  
New Delhi 110 018  
Phone: 535307, 534577, 5190207

14. M/s. Need Prakashan  
219, Jamrud Pur  
Opposite N-Block, Greater Kailash I  
New Delhi 110 048  
Phones: 6443814, 6435460

15. M/s. Gopi Ram & Sons  
2619/20, C-3, New Market  
Nai Sarak  
Delhi 110006  
Phones: 3253351, 3250632

16. M/s. Sachdeva Book Depot  
IX/6081, Main Road  
Gandhi Nagar  
Delhi 110 031  
Phones: (O) 220-299, (R) 2415144.

#### Gujarat

1. M/s. Shalibhadra Stationers  
Shanti Society, Behind Bombay Garage  
Shahibaugh  
Ahmedabad 380 004  
Phone: 5621748

#### Haryana

1. M/s. Sharma Brothers  
Near B.D. High School  
Ambala Cantt. 133 001  
Phone: 640525

2. M/s. Deepak Book Depot  
Hospital Road  
Ambala Cantt. 133 001  
Phones: (O) 642076, (R) 641706, 640706

3. M/s. Children Book Depot  
4329, Near B.D. Sr. Sec. School  
Ambala Cantt. 133 001  
Phone: ((O) 642585

4. M/s. Dwarka Prasad & Sons  
Moti Bazar  
Hissar 125001  
Phones: (O) 31657, (R) 36122

5. M/s. Swami Kitab Ghar  
Kacha Beri Road  
Rohtak 124001  
Phone: (O) 45879, (R) 46886

6. M/s. Naresh Book Depot  
Partap Chowk  
Rohtak 124001  
Phones: (O) 53889 (R) 53052



### **Jammu and Kashmir**

1. M/s. Harnam Dass & Brothers  
Parra Danga  
Jammu Tawi 180 001  
Phones: 542175, 44428
2. M/s. Sahitya Sangam  
Kochi Chhawani  
Jammu Tawi 180 001  
Phones: (O) 549049, (R) 548729

3. M/s. Gupta Book Centre  
General Bus Stand  
Jammu Tawi 180 001  
Phone: 47046

### **Karnataka**

1. M/s. Hema Store  
No. 1 & 2, Balaji Theatre Complex  
Vannarpet, Vivek Nagar  
Bangalore 560 047  
Phone: 5575110

### **Kerala**

1. M/s. Academic Book House  
Pulimoodu Junction  
Thiruvananthapuram 695 001 (Kerala)  
Phones: (O) 333349, (R) 331878,
2. M/s. TBS Publishers & Distributors  
TBS Building  
G.H.Road, Calicut 673 001  
Phones: 720085, 720086
3. M/s. Academic Book House  
39/817, Chitor Road, South Junction  
Ernakulam 682 016  
Phone: 369613
4. M/s. H & C Store  
D.H. Road  
Ernakulam South  
Kochi 682016  
Phone: 351563

### **Madhya Pradesh**

1. M/s. P.K.Books & Stationers  
C/O Prem Book Depot  
Sadar Bazar Cantt.  
Jabalpur 482 001  
Phone: 320840
2. M/s. M.P. Textbook Corp.  
Shivaji Nagar  
Bhopal 462 011  
Phones: 550727, 553094

### **Maharashtra**

1. M/s. A.H. Wheeler & Co. Ltd.  
25, R.B.K.Bole Road  
Dadar (West)  
Bombay 400 028  
Phones: 2613915, 2618103
2. M/s. S. Chand & Co. Ltd.  
3 Gandhi Sagar East  
Nagpur 440 002  
Phone: 723901

### **North-East States**

1. M/s. Bani Mandir  
Rani Bari, Pan Bazar  
Guwahati 781 001  
Phone: 520241
2. M/s. United Publishers  
Main Road, P.B. 82  
Pan Bazar,  
Guwahati 781 001  
Phones: (O) 32059, (R) 546244
3. M/s. Paper & Stationery Stores  
Paona Bazar  
Imphal 795 001 (Manipur)  
Phone: 221109
4. M/s. Modern Book Depot  
G.S.Road  
Hotel Mansoon Building  
Shillong 793 001  
Phones: 223476, 223810
5. M/s. Synod Communications  
Department Mission Veng  
Aizwal-796001, Mizoram  
Phones: 322672, 327 931
6. M/s. Donyi - Polo Enterprises  
'C' Sector, Itanagar  
Arunachal Pradesh  
Phones: 22769, 22858

### **Orissa**

1. M/s. Gyan Bharati  
Station Square  
50, Kharavelangar Unit III  
Bhubaneswar 751 001  
Phones: (O) 408736, (R) 402664

### **Punjab**

1. M/s. Neelam Publishers  
Adda Tanda  
Jalandhar 144 008  
Phones: (O) 56899, (R) 57170



2. M/s. Malhotra Book Depot  
Railway Road,  
Jalandhar City 144 001  
Phones : 57160, 58388
3. M/s. Desh Raj & Sons  
Arna Barna Bazar  
Patiala 147 001  
Phones: (O) 216076, 304179, (R) 219172

#### **Rajasthan**

1. M/s. Manohar Book Depot  
Near Railway Station Road  
Sadar Bazar  
Jaipur 302 006  
Phones: (O) 516056, 376486  
(S) 202903, (R) 510211

#### **Tamil Nadu**

1. M/s. New Century Book House (P) Ltd.  
13, Anna Salai  
Madras 600 002  
Phones: 8549563, 8550664
2. M/s. New Century Book House (P) Ltd  
79-80, West Tower Street  
Madurai 625 001  
Phone: 25106
3. M/s. Century Book House (P) Ltd.  
3 & 4, Nehru Stadium, VOC Park  
Coimbatore 641 018  
Phone: 380554

#### **Uttar Pradesh**

1. M/s. Allahabad Book Centre  
20, M.G.Marg, Civil Lines  
Allahabad 211 001  
Phones: 623468, 420936, 603159
2. M/s. Sahitya Bhandar  
50, Chachchand (Zero Road)  
Allahabad 211 003  
Phones: 400787, 402092
3. M/S.Universal Book Company  
20 Mahatma Gandhi Marg  
Allahabad 211 001  
Phones: 623467, 624953
4. M/s. Saraswati Sadan  
19, Subhash Market  
Bareilly  
Phones: (O) 474092, (R) 474042, 471142
5. M/s. Chacha Book Store  
121, Sadar Bazar  
Lucknow 226 002  
Phones: (0522) 451835, 450525

6. M/s. Sharma Stationery  
Book & General Stores  
Shri Nagar, Alambagh, Lucknow 226 005  
Phones: 456851, 454229

7. M/s. Vyapar Sadan  
177/25, Mahavir Market  
Gwynne Road  
Lucknow  
Phones: 221771, 282423, 373794

8. M/s. National Book House  
Dispensary Road  
Dehradun 248 001  
Phones: 659430 (R) 621470

9. M/s. Uttam Pustak Bhandar  
1, Akhara Bazar  
Dehradun 248 001  
Phones: (O) 624820 (R) 625645

10. M/s. Rajhans Pustak Bhawan  
Subhash Bazar  
Meerut ( U.P.)  
Phones: (O) 27138, (R) 26738, 74076

11. M/s. Arunodaya Book Centre  
Guru Bagh  
D-45/3, Luxa Road  
Varanasi 221 010  
Phone: 320724, 361668

12. M/s. Gupta General  
Training Company  
Karanghanta, Bulanala  
Varanasi 221 001  
Phones: (O) 353017, 354582, (R) 344802

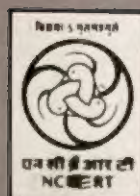
13. M/s. Banaras Book Corporation  
University Road, Lanka  
Varanasi 221 001  
Phones: (O) 311385 (R) 312316

14. M/s. Vidyarthi Kendra  
D-453, Luxa Road  
Varanasi 221010  
Phones: 320730, (R) 320709

#### **West Bengal**

1. M/s. Dev Sahitya Kutir (P) Ltd.  
21, Jhamapooker Lane  
Calcutta 700 009  
Phones: 3504294, 3504295, 3507887





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